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REGISTERED C. 6

THE INDIAN LANCET.

A Weekly Journal of Medicine, Surgery Public Health and of General Medical Intelligence.

Edited by RUDOLPH MONNIER M.B., M.S., Edin.

Vol. XXXI.] CALCUTTA, MONDAY, FEBRUARY 10th, 1908. [No. 6

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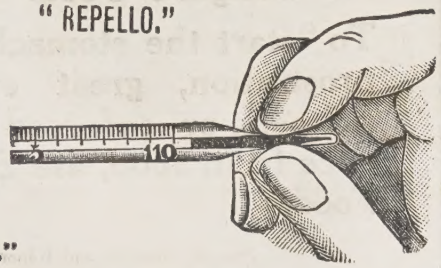

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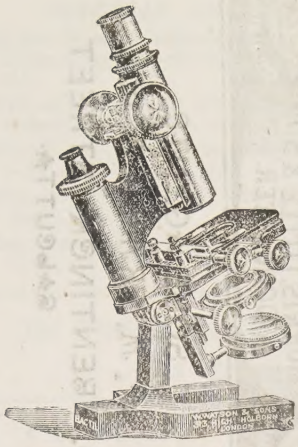

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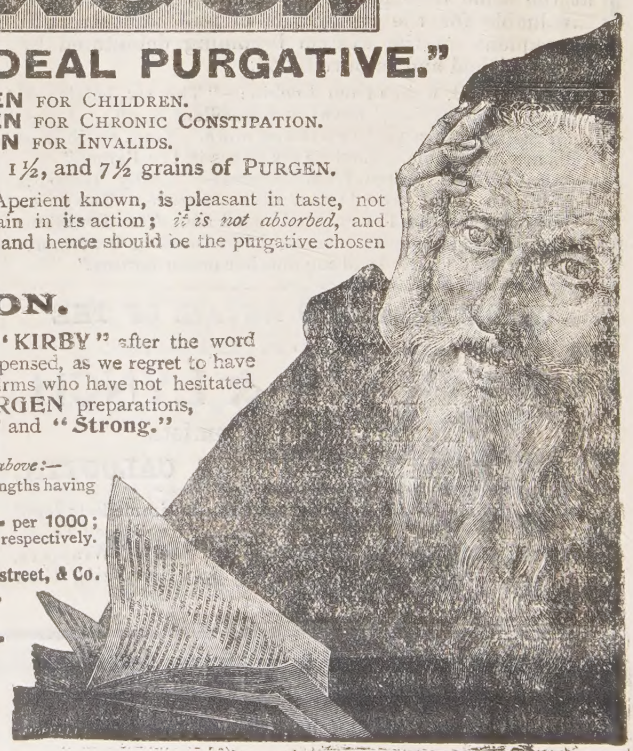

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Qui docet, discit

CARDIAC DILATATION FOLLOWING ACUTE INFECTIOUS DISEASES.*

By J. Eddy Blake, M.D.,

Cardiac dilatation, with or without hypertrophy, is a common phenomenon, and it is more or less well known and recognized by all practitioners.

The causes are numerous, but they may all be grouped under six main divisions:

1. Excessive muscular strain: as sometimes seen in athletes and others.

2. Excessive mental emotion: as Joy, fear, anxiety, etc.

3. Mechanical interference with the circulation: as seen in insufficiency or stenosis of the heart valves; aneurism of the aorta; high vascular tension; repeated attacks of coughing etc.

4. Various but little understood degenerative changes which occur in the hearts of most adults past the meridian of life.

5. Degenerative changes in the heart due to malnutrition, as in anæmia, etc.

6. Degenerative processes in the muscular and nervous organism of the heart, resulting from acute toxemias. For the most part, such toxemias are caused by acute infectious disease; and it is to this class of cases that I desire to call especial attention.

It has long been known that acute cardiac dilatation may follow degeneration of the heart muscle, as the result of acute infectious disease, and most of the leading works on medicine mention infectious disease as a cause of dilation.

"Dilatation sometimes follows degeneration of the heart muscle as a result of the acute infectious diseases, notably typhoid, erysipelas and pneumonia. It is then attributed to the anæmic condition or to the action of toxines circulating in the blood."—(French, Practice of Medicine.) "Dilatation may occur either slowly or acutely as a result of weakness of the heart from acute fevers, such as typhus, typhoid, rheumatism or pneumonia. In such cases the heart is weakened by anæmia and poor nutrition, the toxines of the disease, or as a result of overwork from rapid action. In some cases the cardiac ganglia are degenerated."—(Thompson's Practical Medicine.) "Impaired nutrition of the heart walls may lead to a diminution of the resisting power, so that dilatation readily occurs. The loss of tone due to parenchymatous degeneration or myocarditis in fevers may lead to a fatal condition of acute dilatation. It is a recognized form of death in scarlatinal dropsy, and occurs in rheumatic fever, typhus, typhoid, erysipelas, etc. The changes in the heart muscle which accompany acute endocarditis or pericarditis may lead to dilatation, especially in the latter disease. In anæmia, leucæmia, and chlorosis the dilatation may be considerable."—(Osler, Practice of Medicine.) "We have seen several times quite a marked dilatation of the heart during an attack of malaria. Sometimes the heart is slightly dilated in chlorosis."—(Strumpel, Text Book of Medicine.) "Sudden death sometimes occurs in diphtheria, typhoid fever, etc,, when the patient sits up in bed. This is caused by the abrupt distension of the ventricles followed by paralysis. In croupous pneumonia over distension of the right heart takes place and often causes death."—(Salinger, Modern Medicine.) "In a few instances in malignant forms of the infectious fevers, such as scarlet fever and diphtheria, the nutrition of the heart may be so rapidly impaired by the toxic agent which causes the disease that dilatation occurs with little or no undue intra-vascular pressure."—(Tyson, Practice of Medicine.) "In the course of infectious fevers parenchymatous degeneration and acute myocarditis are frequent causes of weakening of the heart muscle, and may lead to sudden and fatal cardiac dilatation unassociated with hypertrophy. These conditions have been noted particularly in typhoid fever, diphtheria, articular rheumatism and scarlet fever, and my experience inclines me to include influenza. Anæmia and chlorosis are not infrequent causes of myocardial degeneration and dilatation."—(Pepper, American Text Book of Medicine.)

But although all these authors mention infectious disease as a cause of cardiac dilatation, none of them describe the affection as found in the course of an infectious disease, and from their remarks on the general subject of dilatation it is impossible to gain any clear conception of the conditions present in this particular class of cases, or to obtain any precise information as to their course, prognosis, or treatment.

* Read before the Brooklyn Hospital Club, January.

So far as I am aware, there is no work in which this general topic is considered. Babcock is very good on diseases of the heart, and he treats of dilatation following influenza, typhoid, diphtheria, et cetera, but he does not mention dilatation following infectious disease as a class. The monograph on cardiac dilatation following typhoid, in Nothnagle, is the best article on the subject of dilatation that I know; but of course it only considers dilatation following typhoid. However, as the cardiac condition following typhoid is closely similar to that following other infectious diseases, the symptoms and prognosis are likewise similar, so the monograph gives a fair idea of the general course of the affection as usually observed.

The current literature on this topic is very meagre. After a careful examination of the journals back to 1900, I have been unable to discover any article dealing with the general subject of the effects of infectious diseases on the heart. But there are a few articles which deal with the effects of special diseases on the heart, and these are worthy of mention.

Wood* reports two cases of acute cardiac dilatation following moderate attacks of influenza. Both occurred in previously healthy adults and both recovered.

Carpenter† describes four cases of uncomplicated myocarditis in children. The first followed an acute throat trouble, supposedly diphtheria. When admitted to the hospital the lips were blue and the apex beat feeble in fifth space outside the nipple line. Patient was discharged cured nine weeks later. The cause of the second case was not determined. On autopsy the right auricle and ventricle were found dilated and the left ventricle hypertrophied. There was well-marked interstitial myocarditis. The third case was caused by an acute attack of rheumatism. One week after admission to the hospital the temperature fell to normal, but a mitral murmur remained Ten days later the patient developed shortness of breath and precordial pain. The temperature had remained normal and neither the pulse nor respiration had increased. But examination showed a defuse impulse beat felt in the sixth space, outside the nipple line. Death occurred four days later. At autopsy the left auricle and ventricle were found greatly dilated. The endometrium and valves appeared normal. Microscopically, the myocardium appeared normal except at scattered points, which showed evidence of fatty degeneration. In the fourth case there was likewise dilatation of the left auricle and ventricle and degeneration of the myocardium. The condition developed in a case of acute general miliary tuberculosis but it is uncertain whether this or a preceding attack of rheumatism was responsible for the dilatation.

Stanley discusses the similarity of symptoms in diphtheria and beri beri. The cardiac symptoms are practically the same, but in beri beri they do not appear until about a month after the onset of the disease. Signs of cardiac dilatation were present in 11 out of 500 cases of diphtheria, and in 98 out of 341 cases of beri beri. He attributes the comparative infrequency of dilatation in diphtheria to the low arterial tension which is commonly associated with that disease. Other authors, however, believe that dilatation occurs in diphtheria more frequently than these statistics would appear to indicate.

Poynton* discusses the infectious nature of rheumatism and its effects on the heart. He shows that dilatation is often one of the first symptoms of rheumatic endocarditis, and that it may persist indefinitely after the attack is apparently well. Incidentally, he notices that nearly every fatal case of diphtheria shows a greater or less degree of dilatation. And he also shows that murmurs often occur with myocarditis without valvular lesion, and believes that this is really the condition present in those cases of rheumatism with cardiac murmurs which later recover and fail to show evidence of valvular disease.

Fischer† notes that myocardial degeneration and cardiac dilatation are common occurrences in scarlet fever and advises first, that all cases should be kept in bed for at least four weeks after the passage of the attack; second, that the heart should be carefully watched to recognize symptoms of failing strength and to guard against overstrain. He dwells on the fact known to all observers, that the temperature chart fails to give evidence of cardiac insufficiency; that this may develop after the temperature has reached normal, and that it may occur in comparatively mild attacks. He reports two illustrative cases.

In addition to the above leading articles, there are a few reports of striking cases following attacks of various infectious diseases, and that is all.

The paucity of contributions to this important and interesting subject would seem to imply either complete familiarity with, or comparative ignorance of, this condition, on the part of the general practitioner. And from my own investigations on the subject, I am compelled to believe that it is not the former.

(TO BE CONTINUED.)

* The Cardiac Complications of Influenza, Amer. Med. October 17, 1903.

† Uncomplicated Myocarditis in Children, Lancet, May 30, 1903.

* Rheumatic Endocarditis, International Clinics, 1903.

† New York Med. Jour., December 17, 1904.

MALIGNANT DISEASE OF THE TESTIS.

By Russell Howard, M.S. F.R.C.S

Malignant disease of the testis is not of frequent occurrence, and comparatively few surgeons have an opportunity of examining a large series of cases. The following figures and cases are taken from the records of the London Hospital for the last 20 years, and the writer has had the opportunity of examining all the specimens, and a number of the patients described.

In the 20 years, about 110,000 male patients have been admitted to the hospital, and of these only 65 were suffering from malignant disease of the testes, or about ·06 per cent. of all male patients.

Out of these 65 patients, the writer has been able to verify the diagnosis, by the microscope, in 57 cases, and to obtain a good clinical history.

At the present time, a complete classification of growths of the testis is not possible, but from the clinical point of view, if not from the pathological, all new growths of the testis must be considered to be malignant, in spite of the fact that enlargement of the organ may have been present for years without secondary deposits occurring. Whether a purely innocent new growth of the testis occurs is doubtful,* and the growths, described as adenomata, differ very distinctly, both clinically and pathologically, from the simple adenomata seen in other organs, such as the breast. In some cases the tumour is apparently encapsuled, and shut off from the normal testicular substance, but, after complete removal of the organ and the tumour, recurrence has occurred in the lumbar glands, and in distant organs.

The classification of malignant tumours is in an equally unsatisfactory condition, some pathologists terming carcinomata tumours, which other pathologists term sarcomata, whilst others again call them endotheliomata, chorion-epitheliomata, embryomata, or malignant teratomata.

These different opinions are based upon the different and varying appearances seen under the microscope, in different parts of the same tumor, and upon different ways of interpreting the appearances seen. These pathological distinctions can only be made after the tumour has been removed from the body, so that, clinically, all cases should be described as malignant disease of the testis, and no attempt made to define the particular variety. The clinical history and the physical signs give little or no information as to the type of growth present, and, when the pathologists cannot agree, there is little use in the clinician labelling a tumour as a carcinoma, or a sarcoma. In every case, the treatment is removal as soon as the diagnosis is made.

It may be of interest, however, to sometimes differentiate between those tumours, which are found to be chiefly composed of fibrous tissue, cartilage, and cysts, the so-called fibro-cystic tumours, and the solid fleshy tumours, which entirely replace the normal organ.

Of the fibro-cystic variety of tumour, there were 7 examples amongst the 57 cases, all of which showed similar microscopic characters, and these characters were never seen in the remaining 50 solid growths.

Age of the Patient.—In the present series of 57 cases, the oldest patient was 60, and the youngest one year old, the average age being 32. Five cases only occurred in children before the age of 12 years, and, if these cases are omitted and the adult patients alone considered, the average age is just over 34 years, which is rather earlier than the usual age incidence of carcinoma.

All the cases in children were solid tumours without any trace of cystic growth, and the age incidence of the cystic tumours lay entirely between 25 and 35 years.

Cases of malignant growths of the testis have been described in patients over 80, and fibro cystic disease has been met with in infants.

Side Affected.—The disease occurred 33 times on the right side and 24 on the left, and in no case were both organs affected. Monod and Terrillon have, however, described a special variety of sarcoma, which has a tendency to attack both testicles at the same time. It is considered by them to be a form of lymphadenoma, but, like the other tumour of the testis, its pathology is in dispute. It is possible that the cases are secondary deposits to tumours in some other part of the body.

Relation to Retained Testis.—Whether the imperfectly descended testis is more liable to malignant disease than the normally placed organ has been for years a disputed point. Jonathan Hutchinson, Junr., in the New Sydenham Society's Atlas of Diseases of the Testis, states that imperfectly descended testes appear to be specially liable to the development of new growths, whilst Macadam Eccles, in his work of the Imperfectly Descended Testis, says, "from these and other facts it would seem that the generally accepted statement, that malignant disease of the imperfectly descended testis is more common than that of the normally placed gland, cannot be substantiated."

*Lecene and Chevason (Rev. de Chir., No. 2, 1907) have described small nodules, never larger than a pea, occurring in ectopic testes, which they think are true adenomata. They have never seen them in the normally placed organ.

The question is a most important one, in view of the modern treatment of the imperfectly descended testis. The operation of orchidopexy is almost generally admitted to be unsatisfactory, and, if malignant disease is more prone to attack the retained testis, this would be a strong argument in favour of removing the organ rather than leaving it alone, or returning it to the abdomen.

The record of 57 almost consecutive cases, seen over a period of 20 years in a large general hospital, would seem to eliminate most statistical errors, and, if this is agreed to, the figures of the London Hospital show that malignant disease is certainly more common in the retained than in the perfectly descended testis.

Out of the 57 cases, no less than 9 occurred in the retained testis, or 15·7 per cent., which is a far higher proportion than the number of cases of retained testis to normal individuals. In 8 of these 9 cases, the testis was retained in the inguinal canal, and, in the ninth, it lay just below the external ring. Two of the cases gave very clear accounts of recurring attacks of pain and swelling in the retained organ, which were probably due to recurring torsion of the spermatic cord.

Cases of malignant disease of an abdominal testis have been described, and are well known, but no case was met with in this series. There was also no case of malignant disease, occurring in a perineal testis, and this is probably accounted for by the fact that the testis, in this position, is operated upon at an early age and either removed or placed in the scrotum.

Two other cases are of interest, with regard to the position of the testis. In one, the patient had a retained testis in the left inguinal canal, and the malignant disease developed in the right fully descended testis. In the other, the testis was stated to have been normally descended till the patient was 7 years old, but, at that age, it became displaced into the inguinal canal by an injury, and remained there till the growth developed at the age of 37.

In all of the cases of retained testis, the growth was solid and fleshy, but a few cases of cystic disease have been described in the retained testis.

Cause.—The cause of malignant disease in the testis, like the cause of malignant disease generally, is unknown, but many writers have pointed out the frequency with which malignant disease of the testis has directly followed an injury to the organ. Some writers have put the proportion as high as 50 per cent.

In this series, definite statements, as to whether an injury preceded the disease or not, were made in 37 cases. In 27, there was no history of injury; in 8, a definite recent injury preceded the growth; in 1, the history of injury was definite, but preceded the growth by some years, and, in another, the onset of the disease dated from an "acute inflammation." The patient was laid up in bed for three weeks with pain and swelling of the organ, and, five months latter, was seen with a large tumour of the testis. No cause of the acute inflammation was given or discovered, but it may have been a case of torsion of the fully descended testis.

Venereal disease does not seem to play any part in the ætiology. In 32 cases, in which the information was obtainable, 29 denied venereal trouble of any kind, one had had both syphilis and gonorrhœa, one had had gonorrhœa, and the other soft sores. The denial of syphilis is, of course, not conclusive, but none of the patients showed any sign, past or present, of that disease.

Period of the Disease when first seen.—For this, the statements of the patients, as to when the swelling first appeared, have to be relied upon. The longest time that swelling was said to have been noticed, in the 57 cases, was eight years, and this occurred in one of the cases of retained testis. The shortest time was three days, and this case occurred in an infant, the mother's statement being taken. The average time was from 6 to 12 months, but examples of more than one year were not uncommon. Taking the cases of cystic disease alone, the longest period that the disease had been noticed was 18 months, and the average time was about six months.

Clinical Symptoms.—The usual reason given for coming to the hospital was the enlargement of the organ. Some of the patients complained of a dragging pain in the groin, and pain across the loins, but the usual reply as to why advice had not been sought before was that "it did not pain."

One patient, referred to above, dated the disease from an attack of acute pain and swelling five months previously, but, on admission to the hospital, he complained of no pain. It was usually only when the tumour became large and heavy, and dragged on the spermatic cord, that the patient complained of any symptoms beyond inconvenience. Later, with secondary deposits in the lumbar glands, there may be sharp attacks of abdominal pain, and, with deposits occurring in other organs, there are the usual signs and symptoms of malignant cachexia Frequently there are, in these later stages, well marked ascites and œdema of the lower extremities from pressure on the large abdominal veins. The sexual power was unaffected in all the cases, in which inquiry was made, and this is what would be expected, when it is considered that only one testis is involved.

Physical Signs.—The disease, in all the 57 cases, affected the body of the testis primarily. The body was uniformly enlarged, the growth for a long period being confined by the tunica vaginalis. In several of the cases the growth was the size of a cocoa-nut, and yet the testis retained its usual shape, and was smooth to the touch. In many of the cases, however, before the tumour reached a very large size, there were localised bulgings of the tunica albuginea, giving a nodular feel to the organ, and these spots were softer to the touch than the rest of the tumour. This nodular feeling was most marked in the fibro-cystic testicles.

The feeling of unequal consistency, in the various parts of the tumour, may depend upon the development of cysts, hæmorrhage occurring in the growth, areas in which the cells have undergone necrosis, or to localised thinning of the tunica albuginea. In one case, that was seen at an early stage of the desease, a localised hardness could be felt at one part of the testis, which proved, on removal, to be the seat of the malignant growth. In cases of cystic disease with a large amount of cartilage, the tumour is exceedingly hard, but in the rapidly-growing fleshy growths, with a large amount of degeneration of the tumour tissue, the organ feels soft and semi-fluctuant, and in two cases, was punctured with a trochar in the belief that fluid was present.

The Epididymis.—Apparently none of the growths started in the epididymis, although sarcoma of this part of the testis has been described. The epididymis becomes greatly stretched, and thinned out over the enlarged body of the testis, and this is so marked that, in the majority of cases, it was not possible clinically to differentiate between the body and the epididymis. After removal of the organ, and bisecting it the epididymis could be readily seen, but it was often impossible to differentiate it by touch. If the cause is seen early, the component parts of the testicle can be made out, but it is not easy to do so, and chief reliance must be placed on the hard enlarged body. Testicular sensation may be present or absent, depending upon the stage of the disease, and the amount of normal testicular substance remaining. In 13 cases, in which this sign was carefully sought for sensation was absent in eight, and present in five. When the testicle is supported in the hand it feels heavy, and the patent frequently complains of its weight, but too much stress must not be laid on this sign.

Hydrocele.—It is probable that a slight excess of fluid is present in the cavity of the tunica vaginalis, in the early stages of a majority of the cases, but, clinically, it can rarely be detected ; and later, it becomes absorbed, and adhesions form.

Out of 50 cases, translucency was only obtained in five, and of these it was localised to one part of the swelling in three.

A general effusion in the vaginal cavity was found in four cases after removal, but in two of them, although looked for it was not detected clinically. Three of the 57 patients were quite sure that, after a preliminary enlargement, the testicle became decreased in size, and then steadily enlarged again. This may be accounted for by the absorption of the hydrocele fluid formed in the early stages of the disease. In no case was there a blood-stained hydrocele, as has been recorded by other writers; but, in several, an exploratory puncture was made with a syringe and blood removed. When castration was performed, it was found that the needle had been thrust into the malignant growth, and, in one case, suppuration followed.

The amount of blood, removed in one case by the exploratory syringe, was two drams, and this was thought to have come from the vaginal cavity, but there was no marked diminution in the size of the tumour. After operation, the needle was seen to have been thrust into the tumour, the two layers of the tunica vaginalis being adherent. Examination of the tunica vaginalis, after removal, usually shows it to be thickened, sometimes to a considerable extent, and the parietal and visceral layers are frequently more or less adherent. Sometimes there are small collections of fluid between the adhesions, giving the appearance of cysts, and sometimes there is enough fluid to render part of the tumour translucent (three cases). If the disease is not very advanced, it is usually possible to separate two layers of the tunica vaginalis.

The Cord.—The spermatic cord is usually unaffected, except that it is a little thickened by the increase in the size of the vessels necessary to supply the vascular tumour, and by the hypertrophy of the cremaster muscle that follows the increase in weight. Out of 44 cases, this thickening was marked in three. In six cases, the cord was infiltrated with new growth, and was nodular to the touch. The nodules varied in size from a pea to a growth as large as the normal testicle. The lumbar glands may, however, be affected, and yet no growth be felt in the cord.

The Vas.—The vas remains unaffected, and can be felt running in the slightly thickened cord. If nodules of growth are present in the cord, it may not be possible to feel the vas.

The Scrotum.—The scrotum is at first normal, and the skin is not adherent to the tumor. The first sign of disease, seen in it, is enlargement of the veins on the side of these tumour, due to the increased vascularity. and the difficulty of venous return, owing to the interference with the venous circulation by the mass of new growth. These enlarged veins may

be seen to form an anastomosis with the superficial inguinal and femoral veins, so as to relieve the congestion of the part; With advance of the disease and adherence of the two layers of tunica vaginalis to one another, the skin ceases to move freely over the testis, and finally becomes firmly adherent at the one part, at which the tumor, if not removed, will fungate.

Glands.—The glands first affected are the lumbar glands, and, out of 53 cases, they were found to be affected in 8, when the patients first came for examination. In two other cases, the enlargement was doubtful, but both patients subsequently died with secondary deposits in the lumbar glands. The lumbar glands are situated on the front of the lumbar vertebræ, and surround the aorta and the vena cava, just below the level of the renal arteries and veins. When the lumbar glands are enlarged in malignant disease of the testis, there is a large deep seated mass to be felt on one side of the spinal column near the umbilicus. This mass is fixed and nodular, and does not move on respiration. It has not the shape or position of a renal or splenic tumour, and the fingers cannot be got under it. There is no expansile pulsation, but the pulsation of the aorta is frequently transmitted through it.

Pressure on the vena cava, causing its partial obliteration, will lead to dilatation of the superficial veins of the abdomen in order to carry on the circulation. Ascites and œdema of the lower extremities will be seen later. The ascites may be due to interference with the circulation through the portal vein, or to secondary deposits of growth on the peritoneum.

The tumour, caused by the infection of the glands, may be so large as to be readily seen on inspection of the abdomen. In one case of the series, the glands chiefly affected were the iliac glands, situated along the external iliac vein, and a large tumour was present in the left iliac region, well below the umbilicus. The inguinal glands were affected in one case without any involvement of the skin of the scrotum. This has been mentioned by other writers, notably by Osler in a recent article and is explained by Jacobson, "either by a reversal of the ordinary lymph current between superficial and deep glands, or by a direct extension of the disease step by step from the latter to the former." When the growth fungates through the skin of the scrotum, the inguinal glands become enlarged from direct infection.

Cases in Infants.—Five of the patients examined were below the age of 12 years, and this group presents some points of special interest. The oldest was four years, and the youngest 1 year, when first seen, and in no case was any reason assigned for the onset of the disease. The periods, during which the enlargement had been noticed, were 3 days, 3 weeks, 6 weeks, 3 months, and 11 months. In the last case, the child was 1 year and 7 months old, so that, if the history is to be believed, the disease started at the age of 8 months.

The enlargement is quite painless, is soft, and gives a feeling of fluctuation. This was so marked in one case that the organ was punctured under the mistaken diagnosis of hydrocele.

Three of the cases had well marked involvement of the lumbar glands on admission to the hospital, and no operation was performed. One died soon after the operation for recurrence in the glands, and the subsequent history of the other could not be traced.

Signs of Growth in the retained Testis.—There is a larger swelling in one of the inguinal regions, with absence of the corresponding testis from the scrotum. In the majority of cases, it is not possible to differentiate the body and the epididymis, but, in some instances, they have been felt distinctly. The mass is firmly fixed to the surrounding structures, is hard but often has soft elastic places in it. It steadily increases in size. The veins over the tumour are dilated, and, later, there is œdema of the lower extremity from pressure in the iliac vein. In cases of intra-abdominal tumour, ascites is frequently present, and the tumour can only be felt on careful examination.

Diagnosis.—The diagnosis has to be made from Hæmatocele, Hydrocele, Chronic Orchitis, and Tubercular Disease.

Hœmatocele.—This condition is the one most frequently confused with malignant growth, the usual error being the diagnosis of the more serious condition. If the hæmatocele dates from some recent injury, or if a previous hydrocele was present, the diagnosis is usually not difficult, but, in some cases, the history of injury is completely absent, and again, as has been shown, injury is a frequent antecedent of malignant disease. If the hæmatocele is not recent, and the history of injury is absent, the diagnosis, by means of the physical signs, is not possible. The effused coagulated blood in the vaginal cavity, and, in some cases, the enormous thickening of the unica albuginea and vaginalis simulate the enlargement of he testis in malignant disease with exraordinary accuracy.

Two cases of hæmatocele recently came under the writer's notice, which had been removed as sarcomata by competent surgeons, and, in neither case, was the diagnosis made until a thorough examination of the tumours was made some months after they had been removed. Another case was shown, before one of the societies, as a case of malignant disease, and no doubt was expressed as to the diagnosis, but, on removal, the

case proved to be an old hæmatocele, and the patient could give no account of its origin.

The diagnosis can be settled by waiting and seeing if the tumour increases in size, but, in the case of malignant disease, this delay is dangerous, and the question should be settled by an exploratory incision with permission to remove the organ if necessary.

It must not be forgotten that, occasionally, a blood-stained hydrocele is present with malignant disease, as in a case described by Kocher, in which, after exploring, he removed the tunica vaginalis, and subsequently had to remove the organ for malignant disease of tha epididymis.

Hydrocele.—The variety of hydrocele, that can be easily mistaken for a malignant growth, is that with thickened fibro-cartilaginous or calcareous walls. The diagnosis should be cleared up by exploratory incision and not by puncture If a trochar is thrust into a cystic tumour, serous or mucoid fluid may be drawn off, and give an erroneous idea of the nature of the enlargement, whilst, if blood flows out, a hæmatocele may be diagnosed, when in reality the instrument has been thrust into a vascular new growth. The exploration is followed by removal of the walls of the hæmatocele, or hydrocele or excision of the testis, if the disease proves to be a malignant growth.

Chronic Orchitis.—Chronic orchitis, usually syphilitic in origin, will simulate a new growth by causing enlargement of the body of the testis. Orchitis is, as a rule, more chronic and indolent than new growth, but the history must not be altogether relied upon, as, in several of the cases of new growth, the patient gave a history of enlargement for years. The epididymis is more readily distinguished in orchitis, and the enlargement of the organ is never so great as in malignant disease. The history and signs of syphilis, and the effect of treatment, are most important in clearing up the diagnosis. Large doses of potassium iodide, combined with mercury, and locally strapping the testis, will usually cause a diminution in the size of the syphilitic testis, but, if this does take place rapidly, an exploratory incision should be undertaken.

Tubercular Disease.—In one case, at least, in this series, the diagnosis of tubercular disease was made instead of malignant disease.

The patient, a man of 53, had had a swelling of the testis for 3 months without pain. The swelling was situated in the lower pole of the testis, and was hard and nodular. It was thought to be in the globus minor of the epididymis, which could not be separately distinguished from it. No changes were found in the cord, the vas, the vesicula seminalis, or in the abdomen; there was no hydrocele. After removal, the lower pole of the body of the testis was found to be the seat of a very early sarcoma.

In some cases of tubercular disease of the testis, in which the body is affected, and there is much fibrous thickening of the tunica albuginea and vaginalis, it may be extremely difficult to arrive at a diagnosis, but there is usually some soft focus of suppuration in tubercle situated posteriorly. Should the testis be removed under a mistaken diagnosis, it is of no consequence as the same treatment is indicated as for malignant disease.

Result.—Twenty-one of the 57 cases could not be traced after the removal of the testis, and, out of the remaining 36 cases, 8 were alive for some time after the operation, but it will perhaps be best to give their histories separately.

(1) H. D. Orchidectomy, March, 1906. In August, 1907, no sign of recurrence. Gain in weight. Sexual power good.

(2) A. F. Orchidectomy, January, 1903. January, 1905, no sign of recurrence

(3) H. Orchidectomy, June, 1895. June, 1898, no recurreuce.

(4) A. L. Orchidectomy, June, 1906. January, 1907, no sign of recurrence.

(5) H. P. Orchidectomy, August, 1889. Well one year later.

(6) W. P. Orchidectomy, 1903. June, 1907, no sign of recurrence, and patient had married since the operation.

(7) T. S. Orchidectomy, July, 1903. January, 1905, no recurrence.

(8) X. Orchidectomy, April, 1889. March, 1899, no recurrence.

Of the 8 cases, 7 were solid growths, and 1 cystic. It will be seen that, although every effort was made to trace the cases, only 2 patients were definitely known to be alive 3 years after the operation.

Two of the 26 cases died as the result of the operation, one from sepsis, and the other from strangulated hernia. In the latter case, the hernia was the only condition recognised before operation, and the malignant growth was discovered and removed at the same time as the herniotomy was performed.

At the autopsy, it was found that secondary deposits were already present in the lumbar glands.

Twenty-seven of the 36 cases had recurrence of the growth. Of these 18 had definite glandular involvement with a well

marked abdominal tumour, whilst only 2 had local recurrence in the scrotum. Recurrence also occurred in the spleen, kidneys lungs, liver, bones, peritoneum, and inguinal glands.

It is a little difficult to draw a fair prognosis from these figures for several reasons. The patients were all of the lower classes, and the enlargement of the testis was, in many cases, neglected for months through ignorance. The tumor was painless, and the testis kept its normal shape, and so the disease was treated lightly.

The number of patients, who could be traced after some years, was small, in spite of the visit to the latest address obtainable, and of enquiry of the neighbours. It may be fairly assumed that, in many cases, the lack of success was due to the death of the patient, but of course many other causes may have operated, and, even if the patient died, it by no means followed that death was due to a recurrence of the neoplasm.

Of the eight cases that were alive for some time after the operation, with regard to four, the time that had elapsed was not sufficient to state that they were cured, for they may succumb to a recurrence.

The general impression left, after considering the above figures, and also figures that have been published by other writers, is that malignant disease of the testis is a very fatal condition, but that early removal of the testis sometimes results in permanent cure.

It is of interest to note that all seven cases of fibro-cystic disease were traced, and that all, except one, died of recurrence.

This solitary exception was alive for one year after the operation, without obvious recurrence, but after that he could not be traced. This result is at variance with the view that some of these cases are of an innocent nature.

Three only of the cases of disease retained testes could be traced. Two of them rapidly died, with recurrence in the lumbar glands, whilst the third was alive and well two years and nine months after the operation. The fatal character of the disease is perhaps due to the large number of lymphatic vessels and veins, which lead from the testis, so that general dissemination occurrs early.

Of the 18 cases, who died with definite glandular involvement, all except one had an abdominal tumour within 12 months of the operation, and, in most of the cases, it was evident within six months. Kocher states that glandular enlargement can be detected within 6 to 18 months of the appearance of the scrotal swelling, but this, of course, gives no real help in the prognosis, as glandular involvement must have taken place long before a tumour could be detected. It is probable that most of the 18 cases, mentioned above, had secondary deposits in the glands before the operation.

Treatment.—The treatment of malignant disease of the testis is removal of the organs, as soon as the diagnosis is made.

This should be done, even if there is evidence of secondary enlargement of the lumbar glands, as the patient will certainly be rid of a source of inconvenience, and the danger of the growth fungating will be avoided.

It is true that, in the series of cases quoted, no patient so far as could be ascertained, lived longer than one year after involvement of the lumbar glands, and, in the majority of cases, death took place much sooner, but in only three cases was there local recurrence, and death from internal growth is preferable to a similar death, combined with a fungating mass in the scrotum.

Operation is contra-indicated, however, in cases of advanced disease in which there is a large lumbar swelling, or evidence of secondary infection or other organs, as death will soon close the scene, and it is useless to expose the patient to the danger and trouble of an operation.

Removal, when the cord is infiltrated, will also be useless as the growth will fungate through the wound, and there may be serious difficulty in stopping the hemorrhage at the time of the operation.

In the case of malignant disease of the testis of infants, it is useless to operate when there is enlargement of the lumbar glands, as death is so rapid that no benefit can result. If the diagnosis is not absolutely certain, an exploratory incision should first be made, and the diagnosis confirmed before removal

The modern operation for glandular carcinoma is the removal of the primary growth, the next set of lymphatic glands, and all the fascia containing the intervening lymphatics. As the cases described above show, the spread of the infection, in malignant disease of the testis, is nearly always along the lymph stream, and it would be most desirable, in all cases, to remove the lymphatic glands as well as the primary growth.

The first chain of glands, met with by the stream of lymph coming from the testis, is situated on either side of the aorta from its bifurcation to the level of the renal arteries, whilst the venous return empties into the renal vein on the left side, and the vena cava on the right. To remove the lymphatic glands, therefore, the abdomen must be opened, and careful dissection of the abdominal aorta made, avoiding the vena cava, the

sympathetic plexus, the inferior mesenteric artery and vein, and other important structures.

In addition to removing the lymph glands and lymphatics, it would also be desirable to remove a portion of the spermatic, vein, in order to prevent spread of the growth by the blood stream. The question to be decided is whether this can be done with safety to the patient, for, at the present time, the chance of recurrence in the lumbar region is very great, and, when recurrence has occurred clinically, it would be practically impossible to dissect off the malignant mass from the important structures in its neighbourhood.

An attempt to answer this question was made by Roberts, who reports a case in the Annals of Surgery for 1902. His patient had had the testicle removed for malignant disease, and had had a recurrence in the scar. An attempt was made to remove the local recurrence, and the lumbar lymph glands. The operation was performed, and the glands removed, but the patient developed symptoms of intestinal obstruction, the wound suppurated, and a fæcal fistula formed. An attempt was made to close this, but about two months after the first operation, the patient died of peritonitis. There was already a local recurrence before the patient died, and the operation removed glands, in which were found secondary deposits. The patient was fat, and the operation presented many difficulties.

Roberts, in his article, recommends the following operation:—As the first step, he would open the abdomen in the median line, remove all the fascial tissue round the aorta from the bifurcation to the renal vessels, and also excise two inches of the spermatic vein on the diseased side. He would then close the abdomen, and, at a subsequent operation, remove the inguinal lymph glands, the spermatic cord, the testicle, and the lateral half of the scrotum.

He admits the difficulty of finding and excising the spermatic vein, and his solitary case of removal of the glands, in 1902, proved fatal.

In view of the modern treatment of cancer, it must be admitted that this operation is desirable, but the writer is not in a position to express views as to its likelihood of success. Desperate diseases, however, require drastic treatment, and that this operation is anatomically possible is certain. If it is rejected, the treatment resolves itself into removal of the affected testis.

The incision should be carried well into the groin, and the cord divided at the internal ring, so that as much as possible of it is removed.

The layers of the abdominal wall should be sutured, as in radical cure for hernia, in order to prevent prolapse of the abdominal contents through the scar.

In the case of malignant growth arising in the retained testis, an attempt should be made to remove it, and in one of the cases quoted above, the patient was well two years and nine months after the operation. While the testis is being removed, care should be taken to ascertain if the cavity of the tunica vaginalis communicates with the general peritoneal cavity. If it does so, the aperture must be closed with a suture, and, after removal of the tumor, the abdominal wall repair in a manner similar to a radical cure for hernia.

In the case of an abdominal tumour, the operation is similar to that for removal of any intra-abdominal growth, and presents no peculiarity. The cases nearly all die from recurrence.

For permission to publish the account of these cases, I have to thank the Medical Council of the London Hospital.

REFERENCES.

Jacobson: Diseases of the Male Generative Organ.
Jacobson: Operative Surgery.
Macadam Eccles: The Imperfectly Descended Testis.
Leaf: Anatomy of the Lymphatics.
Roberts: Annals of Surgery, 1902.
Curling: Diseases of Testis.
Kocher: Krankheit Hoden, and 2nd Edition.
Butlin: Med Times and Gazette, 1883.
Malassez: Bul. Soc. Anat., 1887.
Monod and Terrillon: Arch. Gen. de Med., 1879.
New Sydenham Society's Atlas, 1894; Hutchinson.
Gray's Anatomy.
Osler: Lancet, May 25, 1907. p. 1409.

WHAT YOU CANNOT DO WITH PURGATIVES.

By Edwin Walker, M.D.

In spite of the rigid criticism and enquiry of our age, there is still in medical literature much which is untrue. An incorrect observation or an immature conclusion by some recognised authority is quoted for years, perhaps for generations, without a question. The medical profession is swayed by fads and fancies, as well as the laity, and possibly in no less degree.

Brown-Sequard, like many other brilliant but erratic teachers, led the profession astray for almost half a century by his views on reflex irritation as a cause of disease. The propriety medicine man has reaped his harvest through the credu-

lity of the doctor. Bare assertions of the venders were enough in most cases, but there has been no difficulty in obtaining the most glowing tributes from reputable physicians to boom their wares when interest waned.

It behooves us, therefore, to carefully analyse and sift everything and accept only what rests on scientific demonstration.

The use of purgatives has been so general, from the beginning of medical knwledge, one would expect to find distinct and clear exposition of their mode of action, and definite and reliable indications for their use, and with this their contra-indication and dangers.

A brief review of the subject in recent works on therapeutics will convince any one that our knowledge is far from satisfactory, and that but little of value has been added to our knowledge in the past decade. If you seek to learn in what manner they act, you will find that about the only point on which all are agreed is that they are irritants, and when excessively used produce inflammation. The resemblance in action of purgatives and infections has been pointed out (Walsh). Ross found he could produce purgation by fending live cultures of the colon bacillus, while dead ones had no such effect.

On the other hand, A. Schmitt, Strasberger, and others have found that constipated stools contain fewer germs, and undergo putrefaction slowly, even in an incubator.

Clinical observation confirms this. Purgatives produce liquefaction of feces, by a fluid which cannot be differentiated from an inflammatory exudate, increased formation of gas and gripping. In what does this picture differ from enteritis due to infection? There is most probably increase in germ life in both.

The purgatives most frequently prescribed are calomel, salines and castor oil.

In spite of its general use and repeated experiments on animals, the method and nature of the action of calomel on the human system are in dispute. It is claimed that its action is due to its conversion into the bichloride, and this is denied by the best of authorities. Good authorities teach that it increases the flow of bile, while those equally as distinguished tell us that it diminishes it. Whether it acts on the liver cells or not in unknown. That it does powerfully affect the human system, and in large doses is a violent poison, is admitted by all. It does increase bacterial growth in the intestines, as its excessive use will cause enteritis.

Is this, then, a drug to be given as a routine? Should it not be withheld except when indications are clear? Should not its contraindications be increased emphatically on every physician?

In regard to the action of salines we are equally uncertain. Their action by osmosis or by diminishing the absorption is hardly tenable. The result of experiments on animals, as well as clinical evidence, seem to discredit this view. On the other hand, the increase of albuminous exudate and gas, with the well-known irritating qualities of strong solutions, render it much more probable that they also act as irritants and increase germ activity in the intestines, and, if used excessively, produce inflammation.

They are doubtless useful in some conditions, although I am not quite sure that much can be accomplished by them that cannot be as well, or better, done by free use of water. There is no doubt at least that they do better when well diluted, and possibly still better if left out entirely.

Then comes castor oil. It probably is one of the least harmful of purgatives, but it does not act by its soothing, oily properties, or mechanically. Its action is due to ricinoleic acid, and the action of this ingredient is compared to the active principle of croton oil. Castor oil is an irritant of the same class as croton oil, only milder; its frequent use, if given in overdoses, will cause enteritis.

I can hear you say, "Are we expected to believe castor oil, that has stood the test of a century is to be classed as a dangerous remedy?" I would not go too far, nor do I deny that cascara, rhubarb and perhaps other laxatives do have a place in our armamentarium. It would be a bold man, in view of their general use, to deny this; but I do claim that they are much over-used. This is not new at all, since warnings against the abuse of purgatives have been often repeated for many years.

I do claim, however, that, notwithstanding repeated warnings, both physicians and surgeons use purgatives in a routine, perfunctory way, very much in excess of what they should. They not only exhibit them when they do no good, but often injure their patients. Do not most patients who consult a medical man get a purgative as the first prescription? And it is a notorious fact that practically all surgeons give a cathartic as the first step toward a preparation for an operation of any kind, be it for ovarian tumor or an ingrowing toe nail. About all the advance we have made in this line is the eliminating of the drastic drugs. I know of no way to express what the extent of this abuse of these drugs is. If I would express them in figures, a guess only, I would say that somewhere between five hundred and one thousand doses were given where one was really needed. A little startling, I admit, but, soberly, I do not think it far wrong.

I do not pretend, from my limited knowledge, to be able to give definite indications and contraindications for the exhibition of purgatives; that will require careful clinical and experimental study to do it with any accuracy. I can, however, point out a few things which cannot be done by purgatives.

The medical man is in error more frequently in the use of laxatives for chronic constipation and obstruction of the bowels either acute or chronic. Before discussing these, I want to protest against the routine use of cathartics in acute cases, which we so often assume are due to an auto-intoxication, and that it is a poisoning from the intestinal canal, a position far from tenable. Boas says: "The importance of intestinal auto-intoxication as an etiological factor of disease is still in doubt."

These toxins are generally far out of reach of a laxative. I am well aware that I am on dangerous ground, because we know so little about auto-intoxication. This being the case, is it not better to be careful in the use of drugs whose actions we know little of in diseases of which we know less (Holmes)? In every case ask yourself what are you to expect. Is the dose indicated? If in doubt, do not give it.

No one has seriously claimed that purgatives or laxatives cure constipation. On the contrary, practically all those best able so speak say that they do harm, and there habitual use is the most potent cause of constipation. Spastic constipation is often caused, and always aggravated, by them.

We should try to discover the cause, and we will find most of them will be due to carelessness; next; errors of diet; then a small portion to a mechanical difficulty which should be overcome surgically, and about the same proportion to what we call atony, because we do not know anything about it and in those few our ignorance compels us to give a laxative.

If, again, I may be allowed to put my guess into figures, I would say (and this is based on the record of about three hundred cases in which this point has been noted) that 98 per cent. would come under the first and second heading; 1 per cent. under the third, and 1 per cent. under the last. In the work of a general practitioner, the proportion of the last two will, I believe, be still smaller.

In acute ileus and intussusception purgatives are potent for evil, and, worst of all, the time for successful operation is often allowed to pass while waiting for the effects of drugs. In spite of all that has been said, such neglect is still far from uncommon, as every surgeon will testify. Purgatives are relied on in chronic obstruction very often until the lesion, has occluded the bowel, and the patient's condition is such that operation is hazardous before the surgeon is consulted. These chronic obstructions are often due to cancer, it is true, and little hope can be held out. Still, early surgical interference would save some of them, and, what is more important, a proportion of the malignant disease is engrafted on benign lesions, and an early removal would result in complete recovery. I recently saw a patient with cancer of the sigmoid, with metastases to an extent that radical removal was impossible, who had had distinct symptoms of partial obstruction for fifteen years, during which time he was treated with purgatives by a number of physicians, none of whom intimated that anything else could be done for his relief. It is highly improbable that this disease was malignant for so many years.

The time has come when on the general practitioner, and not on the surgeon, will rest the blame for the unfavorable results in these bad cases.

The surgeon, in spite of his boasted medical nihilism, is not behind his medical brother in the thoughtless misuse of purgative drugs. I have yet to find a hospital in which it is not the practice to give to every patient who is to undergo any kind of an operation a purgative, if time will permit, and in large majority they are used afterwards; the practice varying from giving a dose just before the operation and continuing immediately after with salines, until the bowels move preferably in the first twelve to twenty-four hours (Byford) to several days after.

If we can judge by works and articles on surgery, it must be a very small percentage who escape a cathartic both before and after operation. If the operation is not on the intestinal canal, why should we give it? And if it is on the prima via, what good does it do?

It goes without saying that a large proportion of cases who come to operation have no trouble with their stomach or bowels. Most of the directions on this subject are vague, and do not rest on fact. We are told to "unload the bowels." If there is loading of the bowel, it is in the colon. The small intestine has always fluid contents, and its persistalsis is almost as constant and regular as the rhythm of the heart. Stasis in the stomach and small intestine is due, with only the rarest exceptions, to mechanical obstruction, for which drugs are useless. It took us ten years or more to get away from the practice of trying to purge out an appendical abscess. Fecal impaction in the colon is not common, and when it does occur purgatives are poor remedies, and a single purge does not remove it; on the contrary, it adds fluid and more germs, which make the development of toxins more certain.

I think a moment's reflection will convince most of you that for operations other than those on the digestive tract an

anemia is better and more rational, whatever the condition may be. Even this is often superfluous, but patients are more comfortable to have the lower bowel empty, and we do not have to disturb them so soon afterward.

How is it about operations on the intestine? If the patient is long enough under observation to have a purgative, say twenty-four hours, his condition will be better and he will surely feel better if he is fed on light, digestible diet, and allow his bowel to empty itself; if it does not, an enema will clear the rectum and sigmoid. If impaction of feces in the colon exists, several days at least will be necessary to remove it, and should be taken if the condition will permit.

As pointed out above, these drugs act as irritants; they increase the fluid in the alimentary canal; they increase the growth of bacteria and render them more virulent, and as a consequence increase the formation of gas. They weaken a patient, and bring him to operation at least more uncomfortable than he would have been without them. Of these reasons, the stimulant given to germ life is most important, and with it we irritate the mucous lining of the bowels, making it less resistant.

Are we not doing with the intestines exactly what we formerly did with the skin? We would scrub it, disinfect it, until normal resistance was diminished or destroyed. Our results have been better since more rational methods were adopted. Why not do the same with the alimentary canal? Let nature alone unless the evidence is clear she cannot do her part.

After the operation the rule should be the same—only give laxatives when clearly indicated. There is no good evidence that they have any power to limit infection if it has taken place; in fact, it is debatable if its possibilities for harm are not far greater.

If no complication exists, they are rarely required. The bowels will move spontaneously as soon as food in sufficient amount is taken. In an article on the abuse of purgatives (American Journal of Obstetrics. Vol, LIV., No. 6) I mentioned the fact that impaction of the rectum was troublesome, but not a serious complication, in some cases. This can usually be remedied by getting the patient out earlier, but if this does not suffice an enema will be of service.

I have operated on nearly one thousand patients for a variety of diseases, a large portion abdominal, without the "usual purge" before, and of these not over 5 per cent. had one after the operation. I am sure my results have been as good, and I think better, than when the giving of purgative was a routine. The patients have been more comfortable, and the most marked advantage is that they have much less tympany. I cannot say the vomiting is less, but the convalescence is more comfortable, and fully as rapid as before.

In conclusion, I want to state that I do not deny that purgatives hold an important place in our armamentarium, and we could not do without them. I protest, however, against their routine use, for they are powerful for evil as well as good. I do not pretend to give final conclusions on so great a question, but think it is high time we were making a definite study of the indications and contraindications of purgative medicines. They are not curative; at best they can only give temporary relief, and when we have to repeat them it is good evidence that there is some underlying disease we have not reached. This may be almost anything, but very frequently is an organic lesion, such as tuberculosis, cholelithiasis, nephritis, or the like. In fact, in the early stages of almost all serious diseases, patients are injured and much valuable time is lost by a course of purgatives which most of them are put through. Their routine use in medical practice is indefensible; in surgical practice, is absurd.—The Virginia Medical Semi-Monthly.

DISEASE OF THE ANTRUM.

By B. D. Sibley, M. D.

Those animals which depend on their sense of smell to aid in obtaining their food have a very highly developed olfactory system. We find the nose and accessory sinuses comparatively larger. The sinuses subdivided and the turbinates more numerous to afford more surface for the distribution of the olfactory nerves. In these animals the branches of the olfactory nerves are distributed throughout the accessory cavities.

But in man, who is endowed with higher faculties and not dependent upon his sense of smell for finding food, this system of labyrinths has degenerated into comparatively simple structures, and the turbinates have been reduced from five to two in number. The accessory sinuses in man no longer contain normally any subdivisions; but rudiments, as well as complete septa, are occasionally found in some of them.

The sinuses themselves are almost completely shut off from the nose by the contraction of their ostia; their olfactory function is lost, and they now serve as respiratory cavities only. The principal function of the nose is to warm and moisten the inspired air, the performance of which necessitates special anatomical arrangements. This is provided for by the turbinates and accessory sinuses. In order that the air may be properly moistened and heated, the rapid influx must be ar-

rested somewhat in its progress. The entrance into the nose is small, but the nasal cavity itself is large. On the outer wall of the main cavity are found several small openings, which communicate with other cavities; the accessory sinuses respectively; the antrum of Highmore, ethmoid cells, sphenoidal sinus, and the frontal sinus.

To further arrest the inspired air, jutting from the outer wall into each nasal cavity we find two shelves or turbinates, freely covered with blood vessels, and mucous membrane, which is continuous with that of the accessory sinuses, all arranged so as to impede the air.

Posteriorly making the exit from the nasal cavity is found a small opening; hence each nasal cavity is really a reservoir with a small opening at each end for the entrance and exit of air, and might be compared to a lake where the air is constantly flowing pure and free and yet retarded long enough normally to be warmed and moistened during its course through the nose, This arrangement prepares the air for the lower respiratory tract, and any departure from the normal arrangement' such as catarrhal congestion, with swollen mucous membrane, or hypertrophy, traumatism, etc., can cause a blocking of these openings and thus, by retention of secretion containing bacteria, act as excellent incubators for purulent inflammatory products, with its resultant effect on the tissues. I shall devote my paper to the discussion of disease of the antrum. Suppuration of the accessory sinuses impresses me as being one of the leading subjects the rhinologist has to deal with. It is foremost in the minds of our best thinkers, and much good is being accomplished. Understand me at the beginning that I do not claim anything original in this paper, but merely wish to state to you the points of interest that impress me as being valuable after considerable research, many operations on the cadaver, the study of over one hundred sections, and what experience has taught me with the cases I have had during my practice in this special line of work.

No attempt will not be made to describe the nasal cavities in detail; but it is quite necessary to refer to the principal points. I shall refer only to the outer wall of each cavity, as it is the only one on which we find our points of interest, and forms the inner wall of the cavity which we shall discuss.

Each outer wall is traversed by two shelves or winglike bodies, known as the turbinates, which project into the nasal cavities, and divide each nostril into three compartments or meatuses.

The inferior meatus is the space between the floor of the nose and the inferior turbinate. The middle meatus of the space between the two turbinates. The superior meatus is all the space above the middle turbinate. There are two points of interest on the outer wall or the inferior meatus: first, the opening of the lacremo-nasal duct, found one-half inch behind the anterior tip of the inferior turbinate, just beneath the junction of the turbinate with the outer wall. The second point of interest is just back of this lacrimo-nasal opening, where the wall is very thin, and is the point where a puncture should be made for diagnostic and drainage purposes.

The points on the outer wall of the middle meatus are as follows: Here we find a crescentic groove, which lends from an opening in the floor of the frontal sinus, passes downward and backward on the outer wall of the middle meatus, under cover of the anterior part of the middle turbinate, and terminates at the opening of the Autrum of Highmore. This groove is known as the hiatus semilunaris. Situated along the course of this groove, and forming the upper and posterior border of the hiatus, we find the anterior ethmoid cells. This groove is a definite and constant landmark to be recognized and located in all sinus operations. In order to locate the groove an anterior end of the middle turbinate must be removed.

It is to be deplored, the confusion of terms which are used by anatomists in describing the nose. All that is necessary to be remembered, however, is that in every instance there is present in the middle meatus a groove extending as described above, and which receives drainage that may come from either the frontal sinus, anterior ethmoid cells, or antrum of Highmore.

You can readily see from the close connection along this groove how easy it is for one sinus to transmit infection to another. They are often simultaneously involved, but are also involved separately. My paper, so far, may appear to you as a rehearsal of the anatomy of the nose; but as I stated at the beginning, a thorough knowledge of the surgical anatomy is absolutely necessary in order to treat intelligently disease of the antrum; as in every case of antrum infection there is great liability for surgical demands.

Etiology.—Any of the acute infectious diseases consequent on coryza such as measles, influenza, or repeated acute colds; traumatism, by conveying pyogenic matter to the antrum or obstruction to the exit of secretions by hypertrophy, polyps, malignant growths, or adenoids, may give rise to purulent inflammation of the antrum. After the cavity is infected the mucous membrane undergoes the changes that mucous membranes are subject to in closed cavities; first swollen and congested, hypersecretion, then hypertrophy and polyps are liable to form. The retained secretion laden with bacteria keeps

the cavity renewed with inflammatory products; and when the cavity becomes closed you often have an offensive caseous formation; and sometimes the cavity swells and may rupture in any direction, either into the orbit, nose, or by extension through the ethmoid cells may rupture into the cranial cavity. Hence you can see the necessity of early recognising the condition, and as soon as possible relieve the retained pus. Not all cases, however, are occluded; and we may have the antrum, as it were, filled and overflowing. The symptoms are frequently associated with coryza. The patient often complains that he has catarrh, and takes cold frequently, having to clear rhinopharynx frequently, and soils many handkerchiefs during the day. He has headaches, neuralgia, pain over the region of the cavity, and tenderness on pressure; or may have swelling over the cavity. Examination of the nose will show the mucous membrane red and injected. The anterior end of the middle turbinate is usually swollen and polypoid; pus is seen beneath the middle turbinate, or may find polyps from one to many, and varying in size, hanging from the middle turbinate or beneath the turbinate along the hiatus. Sometimes the posterior end of the inferior turbinate is very much hypertrophied, blocking the choana on the affected side, due to constant irritation from pus trickling backward over the turbinate. Often the sense of smell is impaired, and the patient has a very offensiva ozena.

The treatment of a diseased antrum depends upon whether seen in the acute or chronic stage. If seen in the acute stage often merely shrinking the swollen mucous membrane, which surrounds the opening in the hiatus semilunaris, frequently, with cocaine and adrenalin, so that the antrum can empty itself and keep the nose clean, is all that is necessary. I always apply the cocaine and adrenalin myself, on a cotton swab. Cocaine, four per cent. solution, is applied to the region of the middle turbinate, and then a flat spatula pointed probe is used to elevate the middle turbinate, and at the same time scrape such granulations from beneath the turbinate as have formed there. Then pass a small saturated swab of cotton beneath the turbinate as far as you can so as to shrink the tissues there. Then clean the nose, keep the patient in bed, give a hot foot bath, Dovers powders and calomel at night, and look after his general condition.

If seen in the chronic stage, first try to establish free nasal respiration by removing any obstruction, such as hypertrophy, polyps, or spurs, and then try to locate the source of pus. After cleansing the nose, remove the anterior end of the middle turbinate, swab the hiatus, leaving a small plug of cotton in the upper part. Make the patient bend forward, his abdomen on a stool and the top of his head resting on the floor, with his face tilted to the opposite side for a few minutes. Then make him blow forcibly through the suspected nostril, and often pus will be found oozing from the lower end of the hiatus, especially if the pus is liquid. Then I suspect the antrum, as its normal opening is found there. Again, if the lower end of the hiatus is plugged and pus continues from above, we infer that it is either from the frontal sinus or anterior ethmoid cells.

I use trans-illumination in every case of suspected disease of either the antrum or frontal sinus. It has never proved of much service in frontal sinus cases, but it has been the means of making a positive diagnosis in several antrum cases for me, in which the picture was very clearly defined. Pain elicited on pressure over the antrum is of course a great aid; but if still in doubt as to the source of infection, I proceed to pass a Myles trocar up beneath and one inch behind the anterior end of the inferior turbinate and puncture the antrum. If pus be present it will be found oozing from the external end of the trocar when the canula is removed. This makes the diagnosis positive. When pus is found in the antrum, irrigate the cavity through the canula with normal salt or 1-15,000 bichloride solution. The solution makes its exit through the normal opening above the inferior turbinate. If after a reasonable time the patient does not seem to improve, I insist upon doing the radical operation.

Unless the antrum is diseased from a tooth, I would never advise opening through the alveolar process, which is so often done by dentists; and if the trans-illumination shows a marked difference in the shade of light, I should not advise that route; for it has been conclusively proven that pus itself does not interfere with the trans-illumination, but that the shadow is produced by the thickened and polypoid mucous membrane; and treatment by irrigation is too slow as well as uncertain, for no one can tell the positive change which has taken place in the mucous membrane of the antrum until he has explored the cavity and investigated its contents. Another objection to the alveolar route is in the fact that the thickness of the alveolar process varies greatly.

The antrum develops or buds out from the region of the normal opening which is situated at the upper and posterior angle of the inner wall, and spreads from this point downward, outward and forward. When there is lack of development it is usually in the downward direction. This explains why the floor of the antrum is sometimes found to be very thick. There is little or no development upward, on account of the orbit, and so the normal opening is situated near the roof. Another very important point which was demonstrated

to me by Dr. Beman Douglas, while studying many sections, is the fact that while the antrum may fail to develop downward in every instance it reached outward beyond the malar ridge; and hence he makes his entrance ½ inch internal to the malar ridge on the anterior surface of the malar process of the superior maxillary bone. The wall is thin here, and the antrum is entered with ease.

The day before the operation I remove the anterior end of the inferior turbinate on the affected side. This shortens the time and lessens the bleeding during the operation. General anæsthesia is used. Place the patient on his back, with head lowered. This avoids the necessity of plugging the posterior nares, as is usually done to keep the blood out of the larynx, which procedure, as well as plugging between the teeth, interferes with the anæsthetist, who at best has a very hard time during the operations upon the mouth or nose. The teeth are carefully cleaned, the lips are retracted by an assistant, and an incision is made along the gingivo-labial line, through the mucous membrane, muscles and periosteum, extending from the incisor to the first molar tooth. The periosteum is retracted, and anterior surface of the malar process is brought clearly into view. The antrum is opened through the anterior surface of the malar process, and enlarged downward to the level with the floor over the alveolar process and internal to the nasal wall and upward to within ½ inch of the intra-orbital nerve. This opening affords a good view of the cavity. The contents of the cavity are carefully removed with a curette, paying particular attention to the angles of the antrum, especially the region of the inner wall near the normal opening. Saturate a piece of gauze with peroxide of hydrogen, and pack into the antrum for a few seconds; and when removed the cavity will be practically free from bleeding. You can then insert a small electric light into the cavity and see that it has been thoroughly cleaned. Notice the inner wall, and you will see a prominence which can also be felt by a finger inserted through the opening. The nasal duct extends from this point upward and forward to the upper and inner angle of the antrum. The lower end of the duct begins as stated before, just beneath the inferior turbinate which crosses the wall about its middle horizontally.

Insert a handle of a scalpel or some similar instrument into the nose, to prevent the chizzel from injuring the septum. A counter opening is made into the nose. Some surgeons enlarge the normal opening above the inferior turbinate, but I prefer the Caldwel Luc method, which is to make the counter opening beneath the inferior turbinate, as there is less danger of puncturing the orbit, and you have the advantage of a lower point for drainage. Make this opening large enough to insert a finger, and then smooth all spiculæ of bone down to the level of the floor of the nose. Again clean the cavity, dust with iodoform, and pack the antrum in such a way with a single strip of gauze that the last end may be passed through the counter opening and extend out of the nose. Should you see more than one strip of gauze, remember how many are used so that all will be removed when re-dressing the wound. The original opening in the mouth is closed with catgut sutures. Leave the gauze in the antrum for four or five days. After this the cavity is treated through the counter opening in the nose by irrigations

In conclusion, I think that conservative methods should always be given a trial before recourse is had to the radical one. Drainage is best secured through the nose. The establishment of free nasal respiration is an important factor in securing permanent results.—THE CHARLOTTE MEDICAL JOURNAL.

CANCER OF THE UTERUS.

BY JOHN A. McGLINN, A.B., M.D.

The first important paper on cancer of the uterus was published by Wagner in 1858. While his description of the histologic changes was perfect and his paper is a classic in medical literature, the epithelial origin of the growth was not then recognized. The epithelial origin of squamouscell carcinoma of the cervix was described by Thiersch in 1865, but it was not until 1872 that Waldeyer demonstrated that all carcinomata were derived from epithelial structures.

In spite of careful research work since that date, our knowledge of this disease has not kept pace with the progress of other subjects in medicine. Theories as to the nature and etiology of the growth have been advnced, some to be accepted as a final solution of the problem, only to be cast aside as the result of further investigation. Thus have fallen the theories of Cohnheim and Ribbert and the parasitic origin. From a practical standpoint our knowladge has increased but little. Very important facts as to the predisposing causes, the diagnosis, and treatment have come to us, and, few as these facts are, the medical profession at large has been lamentably negligent in accepting these lessons and applying them.

It is not the purpose of this paper to review at length the subject or literature of cancer of the uterus, but to briefly outline some salient points of the disease and endeavor in a few words to present a few important lessons for consideration.

Varieties.—As there are different kinds of epithelium covering the cervix and lining the cervical and uterine canals, so

we have various types of cancer affecting this organ. The vaginal portion of the cervix is coverd with squamous equamous epithelium. It is generally supposed that the squamous epithelium ends abruptly at the external os, but it frequently continues almost up to the internal os, and has been found in the uterine canal.

The cervical canal is lined with cylindrical and glandular epithelium. The uterine canal is lined with glandular epithelium. These glands are of the narrow, tubular variety. We may, then have the following varieties of cancer affecting the uterus:—

Squamous-cell carcinoma of the cervix.
Adeno-carcinoma of the cervix.
Adeno-carcinoma of the body of the uterus.
Squamous-cell carcinoma of the body of the uterus.
The last is an extremely rare type of the disease.

Frequency.—Statistical studies would lead us to believe that cancer of the uterus is much more frequently met with now than formerly. There are so many factors to be considered, however, in studying statistics, that it is impossible to come to a positive conclusion. The generel belief is, however, that the disease is on the increase. The uterus is undoubtedly one of the most frequent sites of cancer. In a study of 31,000 cases of cancer, Welch found the stomach the primary site of the disease in 21.4 per cent., and the uterus in 29.5 per cent. of the cases.

Whether or not cancer is on the increase, the fact remains that uterine carcinoma is one of the most inportant, if not the most important, disease we have to consider, first, because of its frequency; second, its high mortality; and third, of its infrequent recognition in its early and operable stage.

Carcinoma of the cervix is a much more frequent disease than that of the body. This may be accounted for by the fact that the cervix is more frequently the site of traumatism.

Etiology.—The theories of Cohnheim and Ribbert and the parasitic origin of the disease have now practically been discarded. No evidence of value has been produced to prove them tenable, and the weight of investigation is decidedly against them.

While we cannot give the true cause of the disease, we know that age, traumatism, and heredity are certain predisposing factors of the condition. While a few cases have been reported early in life, some as early as 20 years, the vast majority of cases occur between the ages of 30 and 60. The most frequent time is at or near the menopause. Cases after 60 years are as rare as in the early periods of life. As a rule, cancer of the body occurs later in life than that of the carvix, though it may occur comparatively early. Cullen has reported 3 cases occurring in women at 30 years, and Ashton reports 1 case in a woman of 20 years.

Cullen and Penrose have shown, from a statistical study, that the cervix had been lacerated either by labor or instrumental dilatation in nearly all their cases where cancer of the cervix subsequently developed.

In cancer of the body, traumatism is hardly a predisposing cause. In these cases endometritis is supposed to be the exciting condition, but histologic studies do not bear out this contention.

Heredity.—Heredity is an etiologic factor that we must consider. While we do not now place the same importance upon this condition as formerly, sufficient statistics have been offered to show that it is a more or less positive factor. In Cullen's cases 15 to 25 per cent. showed hereditary taint.

Symptoms.—The symptoms may be classified under the following headings:—

Hæmorrhage.
Discharge.
Pain.
General symptoms.

Hæmorrhage is usually the first suggestive symptom. It usually manifests itself as a slight show of blood after coitus, straining at stool, walking, or undue exercise. As a rule, the bleeding in the beginning of the disease is slight, but in the later stages the bleeding is almost continuous. If the disease occurs during the menopause the bleeding is often mistaken for a continuation of the menstrual function.

Discharge.—Discharge usually antedates the bleeding; but as the majority of women have a discharge, a slight change in the character or amount of the flow is not noticed. At the beginning the discharge may be blood-streaked, or it may be thin and watery from the start. As the disease develops the discharge becomes profuse and purulent in character. The odor becomes foul and disgusting, the color changes to a dirty brown, it is irritating and contains shreds of broken-down tissue. Rarely the discharge is without odor during the entire course of the disease.

Pain.—Pain is usually absent during the early stages. When neighboring structures become involved, the pain is frequently intense. It is located in the inguinal and lumbo-sacral regions and in the lower abdomen. In cancer of the cervix pyometra may develop and severe attacks of uterine colic result. Some-

times paroxysmal pain is due to neuritis. If the peritoneum becomes involved, localized peritonitis results and produces intense suffering.

General Health.—In the beginning the general health may not be depreciated. It is remarkable how well the health is maintained even until quite late in the disease. It is not unusual to see a patient maintaining body fat and of a good color, and yet find the entire cervix and vagina involved by a large cauliflower growth. This apparent condition of good health should not throw us off our guard when we are studying a case of menorrhagia or metrorrhagia. In the last stages of the disease the patient becomes anæmic and emaciated. If the ureters are involved, uræmia develops and the patient becomes apathetic and eventually comatose.

Urinary and fæcal fistulæ may develop and add to the discomfort of the patient. Œdema of the lower extremities and ascites are late manifestations.

Physical Signs.—Very little need be said of the physical signs. When characteristic physical changes have taken place, the disease has usually progressed beyond the help of medical aid. The large cauliflower-like mass projecting from the cervic and the excavated area extending into the cervical canal are only too frequent pictures of the terrible ravages of the disease.

In the late stages of the disease, when characteristic symptoms are present and typical physical signs are found, the diagnosis is not difficult, but intensely interesting. Interesting because it shows dramatically what neglect or carelessness may lead to. It is also of the utmost interest, because it should impress us with the necessity of making an early diagnosis. The only diagnosis worth while is an early one, and this can only be accomplished by a histologic study of curette scrapings and cervical tisues. A knowledge of mycroscopic pathology is not necessary on the part of the general practitioner, or even the surgeon, to avail himself of the opportunity of seeking this method of disgnosis. All that is necessary is the technic skill to curette the uterus or remove a piece of tissue from the cervix. After the specimens of tissue are obtained, they are placed immediately in a 10-per-cent. solution of formaldehyde and sent to a competent pathologists. No matter where a man may practice, he can always be in touch with a well equipped laboratory. In reference to the pathologic report, an important fact must always be borne in mind.

A positive report is conclusive, and a negative report is never conclusive. Do not then, be lulled into a false position of security because the laboratory failed to find malignancy; but be ever observant of the case, and, if the symptoms persist, send other specimens for examination, until by reported pathologic examinations and the course of the disease you prove it not to be cancer.

Prognosis.—Unless operated upon radically in the early stage and cured, cancer is practically invariably fatal in from one to two years after its onset.

If operated on early, before involvement of periuterine structures, the prognosis is not so black. Early operations in cancer of the body will give 60 to 75 per cent. of recoveries without a return. The prognosis of cancer of the cervix is not so favorable, but so much has been accomplished in early cases that we feel that it is not an incurable disease.

Treatment.—The only treatment that promises relief is surgical intervention. Cases have been reported cured after a simple curettement or amputation of the cervix; but with our present pathologic knowledge as a extension, nothing short of a complete hysterectomy is justifiable. Both vaginal and abdominal hysterectomy have many advocates. Personally I believe the abdominal route is the best and safety way to operate.

If the disease has extended beyond the uterus, it is futile to attempt a radical operation. If the patient makes a post-operative recovery, she is almost certain to have a recurrence.

In the late stages of the disease little can be done except to control the bleeding and discharge by curettement and the application of the actual cautery to the diseased area, and the free use of morphia to relieve the pain.

I wish to emphasize the following points:—

The vast majority of cases of inoperable cancer of the uterus come to us with the following statement: "My doctor told me that the bleeding was due to my change of life, and so soon as I passed the change the bleeding would stop." Abnormal bleeding at the monopause is never, under my circumstance, a normal condition. All such bleeding should be looked upon with suspicion, and we should never rest content until cancer can be positively and absolutely eliminated as the cause of the bleeding.

I wish to urge the same precaution in reference to the consideration of uterine discharges. It is our practice at the Medico-Chirurgical Hospital and in my private work to have all curette scrapings and pieces of cervices removed at operation examined in the laboratory. It is true that we do not have many cases diagnosed as the result of this practice, but we have records of two cases where an early and positive diagnosis was made when cancer was but remotely considered, and both these women are living and well, one twelve years and the other five years after operation.

Inasmuch as lacerations of the cervix, particularly those associated with erosions, cystic degeneration, and eversion of the cervical mucous membrane predispose to cancer, all such lesions should be repaired. As Dr. W. E. Ashton so strongly puts it in his Practice of Gynæcology: "The obstetrician, before discharging a patient after confinement, should examine the cervix, and if a laceration is found to be present it should be repaired within three or four months. It should also be the duty of the general practitioner to examine the cervix of all women who consult him for pelvic symptoms, and urge a repair operation if a laceration is found. And, finally, I would urge as a routine practice the examination of every woman over 40 years of age who has borne children, and the immediate repair of all lacerations of the cervix that may be discovered."

In closing, let me emphasize again that the only diagnosis worth while is an early one.—The Medical Bulletin.

A Mirror of Practice.

THE DIAGNOSIS AND TREATMENT OF DUODENAL ULCER.

Duodenal ulcer, says Moynihan, has been considered an extremely rare disease, very difficult of diagnosis. In an article in the Practitioner for June he shows in a quite convincing manner that duodenal ulcer is common and that its diagnosis in a great majority of cases is fairly easy. He says, moreover, that the surgical treatment is the safest and indeed often the only reasonably safe treatment that can be adopted.

Duodenal ulcer, properly called "peptic ulcer," may be present in any part of the duodenum, but is usually found immediately beyond the pylorus. In forty per cent. of the author's cases it has been found associated with gastric ulcer, and in these cases it is not improbable that the gastric ulceration is the primary condition, the duodenal ulcer being secondary and being caused by the digestion of the duodenal mucosa by the hyperacid gastric juice. In this connection it is a very striking fact that the part of the bowel affected by the process of ulceration is that with which the food is immediately brought into contact as it leaves the stomach. Duodenal ulcer is found at all periods of life, from the new born to the very aged. The average age in the author's series is 38 years. Men are more frequently affected than women in about the ratio of 2 to 1. A history of hasty and perhaps heavy meals at irregular intervals is not infrequent.

The symptoms of duodenal ulcer are in the majority of cases sufficient to enable a diagnosis to be made without physical examination of the patient. After food is taken the patient is free from pain, and it is his best time of the day. But from 1½ to 4 hours after a meal a sense of uneasiness develops, he has a burning and gnawing sensation, and there is a bitter taste in the mouth with perhaps eructations of food or gas. The pain which gradually increases may be relieved, often considerably, by belching or pressure. Patients discover for themselves that taking food relieves the pain, so they carry around with them biscuits or something of the sort which they use as the uneasiness develops. The appetite is generally good and in fact often better than normal if stenosis has not developed. If there is such a history of pain as the above, says the author, one may be confident that the patient has duodenal ulcer without stenosis.

The symptoms may gradually improve and even disappear, only to reassert themselves after a longer or shorter interval. What such a period of latency means is not known, for if the patient be operated upon during this period the ulcer is still there. It may be that though the scar is there the mucous surface heals over temporarily, only to break down again. In the "attack" the patient generally, but not always, loses weight. Some of the patients are sleek and stout, and from experience one would never suspect such a condition. Constipation is a frequent symptom.

The author's description of the pain he says, reminds one at once of that which is described as "hyperchlorhydria," or "acid dyspepsia." Moynihan says that he has no hesitation in saying that the "acid dyspepsias" which are supposed to be "functional" are in truth generally cases of ulcer in the duodenum. Vomiting is an infrequent symptom of duodenal ulceration, and comes on as a constant symptom only when there is stenosis. As to abdominal tenderness, an examination of the surface of the abdomen will generally reveal a tender area a little above and slightly to the right of the umbilicus. The most serious of the symptoms is hemorrhage, which may be manifest as hæmatemesis or melæna. Sometimes it is the only symptom. Hemorrhage from a duodenal ulcer is a far more serious matter than is bleeding from a gastric ulcer, for though it is not necessarily more profuse it is certainly more apt to continue and to recur, and it is even less under control. The amount of hemorrhage is often impossible to estimate. Perforation of a duodenal ulcer may occur at any stage in the course of the disease, early or late, but it is quite certain that it never occurs without previous symptoms of the ulceration having been present.

The only serious difficulty in differential diagnosis is encountered in those cases of cholelithiasis, few in number but not to be ignored, in which there may be hyperacidity and the "hunger pain" above mentioned, in this case caused by disturbance of the inflamed gall bladder by food passing out of the stomach. The tenderness elicited by pressure on the lower margin of the liver during deep inspiration at the moment when the gall bladder impinges on the fingers is quite different, however from that quite definitely localised tenderness found in uncomplicated cases of duodenal ulceration.

Moynihan asserts that medical treatment, however carefully carried out, has proved of less value in duodenal ulcer than in gastric ulcer. He refers to his methods of performing posterior gastro-enterostomy, with which he combines infolding of the ulcer, by a double layer of sutures. A strict dietary, with the administration of an alkaline bismuth mixture, is advised for the three months after the patient returns home, if there is any indication of persisting acidity.

Annotations.

PHYSICAL CULTURE OF CHILDREN.

All outdoor games that involve running and active movement of any kind are useful adjuncts in physical development. An immense amount of exercise is taken under the guise of diversion. Battledore and shuttlecock, which was long a favourite amusement, is a capital indoor game where there is room to play it, and might be revived with advantage. Bean-bags, coloured bags filled with beans and aimed at a ring or other mark, and the form of quoits played on ship-board with rings of rope may be utilised to furnish exercise on rainy days. Especial attention should be paid to ventilation when the children are exercising indoors. The respiration is quickened, the lungs demand more air, and there should be a plentiful supply of oxygen to meet it. Impure air poisons the delicate tissues of children; that which has been devitalised by passing through the lungs is unfit to be breathed again. If the impurities with which it is loaded could be visible we would shrink from inhaling it, and wonder at our folly when by raising the window a fresh supply is at our command.

EGGS FOR CHILDREN.

Attention has been called to the value of uncooked eggs as food for growing children. Of all the substances found in the animal organism albumin seems to be the one most directly concerned with the phenomena of growth and development. Its value as a food is correspondingly great, and is not sufficiently appreciated In the artificial feeding of children this should be borne in mind. The white of the raw egg is the most available form in which we can find albumin, and it should be used in the preparation of most of the foods for children. After the regular nursing period it is well to add raw eggs to the milk regularly taken by the child.

A GAME OF CARDS FROM THE HYGIENIC POINT OF VIEW.

Playing cards that have been used again and again would doubtless show on bacteriological examination an appalling selection of micro-organisms, and on enumerating them there surely would be found the organism which works for evil side by side with that which works no mischief. In many instances scientific examination is not needed to lay bare objectionable facts. The packs of cards which have been circulating for weeks at Bridge parties sooner or later get soiled by constant contact with the human hand. Prior to dealing some persons may even be caught moistening their finger-tips with the tongue in order to facilitate the "dealing-out" process. The cards, says the "Lancet," become discoloured and get sticky and thus form a favourable developing ground for micro-organisms which are handed round over and over again to partners and to opponents, the game serving in this way as a very effectual means of distributing insanitary materials. The potentialities of the evil organism are encouraged by the heated and, as a rule, badly ventilated air of the closely packed card party room. There is little doubt that card parties are a frequent source of common colds, influenza, and catarrh. Under the physically vitiated conditions of the average card party the vitality of the human organism is soon lowered, the bacillus is there, invades the body, and soon manifests its triumph in the sneeze, the catarrh, and the sore throat. Bridge parties are, as a rule, excellent media for the transmission of winter colds and more or less serious influenzas. The excellent efforts of those persons who show regard for their health by adopting in their own homes the policy of fresh air are completely crushed by a few hours' stay in the stuffy, unchanged air of the crowded card-room. Never is ventilation more essential than on the occasion of such a gathering, but the supply of fresh air sufficient for the needs of the players is rarely provided for. The very cards played with, sooner or later give unmistakable evidence of the insanitary aspects of a card party. It may be wondered why washable playing cards are not introduced, and it might even be made a rule that "the dummy" at a round of bridge should occasionally wash the pack when for a short time his role of player in the game is suspended.

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The Indian Lancet.

CALCUTTA : MONDAY FEB. 10th, 1908.

VENEREAL DISEASES AND THE STATE.

The problems of temperance and suppression of venereal diseases have been hackneyed ones and yet in view of their immense importance both to the public and State they can never be out of place and form. History has taught us, from time immemorial that, the prosperity and well-being of a nation chiefly depends on the health of the people and further that healthy mothers are sine quoa non for a healthy nation. Race degeneration and physical decadence go hand in hand; in-fact one is the necessary and inevitable sequence of the other. Among the so called venereal diseases syphilis and gonorrhœa are included and the first is the greater of the two evils. It not only saps into the very vitals of its victims but is transmitted in its virulence from generation unto generation and cripples the innocent offsprings in succession rendering them all vulnerable to the manifold diseases,the human flesh is heir to. Such being a brief outline only of these maladies we will see if there are any feasible means to grapple with this most vital question. It is the bounden duty of our Government to declare them as communicable diseases and as such, every case to be reported under a penalty for omission on the part of the medical man or patient to do so.

Every brothel and house of illfame in the land should be placed under rigid vigilance and every diseased inmate put in a Lock Hospital and treated till she is free from any taint of the disease. Persuasions to earn an honest livelihood should be persistently and gently made, during the period of detention in the Hospital.

A law should be passed that no marriage would be legalised until a certificate of health be presented just before the marriage by the parties to the Registrar and it should further be enjoined that this certificate be duly signed by a duly qualified medical man.

A brief and convincing pamphlet dealing with the history, character and dangers of these diseases should be compiled by the Government Medical Advisers and a copy of it placed in the hands of every boy and girl in the country, at the age of puberty (14 to 16 years). This should be translated into the different dialects of our country and distributed broadcast.

Another copy of this should be put into the hands of the parent or guardian of each child with an earnest appeal and injunction to explain and admonish their children regarding to the far-reaching evil results of these diseases.

We are not extremists and never hope to eradicate gonorrhœa and syphilis from the land in a short time but yet are quite sanguine, that if the Government and the public earnestly strive to stamp them out, their efforts will in the long run be crowned with success.

PTOMAINE-POISONING.

A term usually employed to denote any sort of food-poisoning, but as a matter of fact there are very few poisonous ptomaines, and food-poisoning in general is really more like a very acute infectious disease. It is caused by the presence of virulent bacteria and their toxins, seidom by the toxins of putrefaction, and practically never by the use of copper cooking utensils.

There is no guarantee of safety in the absence of putrefactive odour in the food, for some of the poisonous bacteria give no such warning of their presence Neither is thorough cooking an absolute protection, for certain of the most dangerous forms of bacteria contain a poisonous substance which is not destroyed by the temperature of boiling water, and even several degrees above it.

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times a chill is the first symptom, and there may be very severe colicky pains.

The pupils are often dilated, muscular twitchings are common, and the pulse is rapid. There is frequently a rash of some kind, either a simple red eruption, like that of scarlet fever or measles, or actual hives.

In mussel-poisoning the symptoms may be referable to irritation of the intestinal tract, resembling cholera morbus or they may indicate depression of the nervous system, consisting in extreme muscular weakness or even paralysis, itching, burning or creeping sensations in the skin, headache, shortness of breath, blueness of the face, dullness, or even unconsciousness.

The symptoms of mushroom-poisoning vary according to the species of mushroom eaten, and may be grouped under the cerebral and the intestinal forms. In the cerebral there are signs of nervous depression alternating with delirium, sometimes cramps in the muscles, dilatation of the pupils and collapse. In the intestinal form the symptoms resemble those of cholera—violent purging, severe colic, muscular cramps in the calves of the legs, intense thirst and clammy coldness of the skin. In some cases there is salivation, with slow, weak pulse, contraction of the pupils instead of dilatation, and collapse alternating with violent delirium.

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MIDWIFERY AND MORTALITY.

A Field For Educated Women.

Alice S. Gregory, in the course of an interesting article in the Nineteenth Century on the subject of midwifery as a profession for educated women, says :—

A considerable amount of attention has been devoted lately to this subject; but it remains an awkward topic with an ugly name, and it is felt by many people that an undue amount of publicity has been awarded it. The amount of real progress has, nevertheless, been disappointingly small, and as it is a matter of vital moment to the community, it is advisable to call public attention again to a few of its most salient features.

The dangers incurred by a working woman at the birth of her children are now so generally recognised, the superiority of the results of good maternity hospitals over those in private (cottage) practice so marked, that it seems at first sight as though the only means of improving our statistics of maternal mortality were to provide sufficient accommodation for every woman of the working classes to be confined in an institution.

In a recent address by Miss Wilson (a member of the Central Midwives' Board), she states that the average mortality of English women from puerperal fever, a preventible disease, is forty-seven in 10,000 or one in 213; but that in three of the best lying-in hospitals, this figure has been reduced to rather less than one in 3,000. It is startling to find that only thirty-seven years ago, a diametrically opposite result was arrived at according to the best obstetricians.

In a paper read before the London Obstetrical Society by Dr. Priestly, in 1884, we are told that in the far north considerable efforts were then being made and large sums of money expended to bring about better results, the alarming ones we quoted having been more or less universal between the years 1860 and 1870. In hospitals at St. Petersburg and Helsingfors Dr. Priestly also found conditions much in advance of those in England. "We have much to learn," he says, "on this point from . . . . Holland." Training is given to a large proportion of students by the State, and at its completion they are bound to work wherever they may be sent, for a period of two years, at a fixed salary provided or subsidised by the Government or community. In this way provision is made for the delivery and nursing of those women who have the misfortune to live in too sparsely populated a district to tempt any midwife working up a practice for herself, and whose case otherwise presents an insuperable problem.

If we compare our own system with that of Holland, I think we shall realise why our statistics do not improve more rapidly. It is, of course, an advance on the complete lack of system which existed before the passing of the Midwives Act; but it cannot be denied that it leaves room for improvement. An English midwife must now pass the examination of the Central Midwives' Board before she is allowed to practise without a doctor. In order to pass that examination, she must have received a course of instruction extending over not less than three months, and comprising at least fifteen lectures. They must also have attended twenty cases, and nursed the same number of women during the ten days following labour; the three months proviso does not extend here, and the twenty cases are occasionally compressed into six or eight weeks, even the 'nursing' being accomplished in an incredibly short period owing to a somewhat liberal interpretation of the term.

We, of the present day, have found this problem awaiting our solution—all these women attended by untrained and uneducated midwives, with disastrous results. We have tried to solve it by taking a few of the same uneducated women, or rather their danghters, and giving them a very little training, and paying them a very little salary, and still no one is satisfied. Not the mothers, for they continue to die out of all proportion to those in hospital. Not the midwives, for they feel themselves now worth a larger salary, and yet fail to obtain it. Not the public, for they have spent a certain amount of time and money on the problem, and still the experts grumble. It sounds an heroic measure, but one cannot help wondering whether we should not succeed better if we went to work on a very much larger scale. If, for instance, large central training schools were instituted, by Government or otherwise, where a very prolonged training were given, as in

France and Holland, the class of women entering the profession would be very materially altered. There would be very few of the cottagers, bred amongst the fatal old superstitions which have accompanied our midwifery from time immemorial, because such women, living of necessity from hand-to-mouth, could not afford to spend so long a time without receiving a salary. In their place we should find a considerable number of the educated middle class, who are always on the look-out for fresh fields on which to expend their energies. They are now repelled by the extraordinary discrepancy between the responsibility of the work and the amount of training considered necessary.

If our midwives belonged to the middle class, they would, many of them, be able to wait a little before they became self supporting; some of them would settle in the more populous centres, where a very fair living can be made by means of a sliding scale of fees. Others again, would establish themselves in the very many country districts where a reasonably large clientele can be reached by the help of a bicycle; and the remoter parts could be served either by the creation of parish midwives, to be paid by the local authorities, or by those holding Government posts in return for their training, as in Holland. Such dreams, Utopian as they may seem to those who demand immediate returns for all Government investments, have already been held as possible of realisation by able and humane men.

The scheme of national training schools, ambitious, as it at first sounds, takes its place among the necessaries rather than among the luxuries of the common weal, when we realise that not one but many of our neighbours have accomplished something at least equally far-reaching, and that not yesterday but in some cases a century ago.

THE ARDHODOY YOG.

Police And Medical Arrangements.

As the Yog festival comes nearer the residents of Howrah are increasingly active in order to ensure the safety and comforts of the pilgrims who are pouring in day after day in large numbers. Recently an application was made to the Joint-Magistrate by some of the leading members of the local community and the bar, for permission to form a body of volunteers, who would assist and co-operate with the police during the celebration of the festival, and the request was granted. No less than 150 volunteers have been already enlisted, about 50 of them being medical students, and they will administer to the comfort of the pilgrims, render them medical aid in cases of necessity and relieve the sufferers.

A temporary shed has been erected on the Howrah maidan, for providing accommodation for about 50 pilgrims and besides the hospital, special arrangements have been made there to entertain possible patients. Regarding the police arrangements, ten constables, with a head constable, will be stationed at each of the several bathing ghats on the Howrah sides of the river, and the services of the reserve police have been requisitioned to meet the emergency.

It may be mentioned in this connection that, although every day shoals of people are coming from the mofussil to Calcutta for bathing purposes, large crowds of pilgrims are leaving Calcutta for Magra Tribeni a junction of three rivers, the Ganges, the Jumna, and the Swaraswati, which meet at Magra, a station on the East Indian Railway, it being a favourite notion of the devout Hindus that bathing at the conjunction of these three rivers at the particular time when the auspicious planets meet together, will bring them salvation. So also in Praying near Allahabad in Nuddea, Krishnagore, Santipore, Benares and all other famous places of Hindu pilgrimage, the rush of the pilgrimage will be considerable.

FOOD AND THE DIGESTION.

Do not destroy the digestion by being careless about food. Eat good, easily-digested food at regular hours. Let milk, eggs, fruit, and vegetables enter largely into the diet. The heavy meal of the day ought to come in the evening, when there is time to rest after it.

SHORT ITEMS.

Plague is raging in Lucknow just now, and many of the bazaars are closed. In consequence it has been announced in station orders that, owing to the prevalence of plague, all natives residing in the city, the Sudder Bazar or any other plague-infected place are prohibited from entering the regimental lines. It is stated that great numbers of deaths are occuring daily. A serious feature of the outbreak is that servants of Europeans are being attacked. The Municipality are endeavouring to arrest the progress of the disease, but it has got great hold, and the sudden return of the cold weather greatly favours its spread.

The special Plague Officer of Cawnpore has been calling at the houses of Indian gentlemen to ascertain their views on the subject of plague and the best way to meet it.

The latest news from Jeddah states that cholera has decreased and that the deaths from that disease are now only a hundred daily.

Miss Van Ingen, lady nurse, and Miss Sailoy who accompanied Doctor Mrs. Winter to Kabul in April last, have returned to India, arriving safely at Peshawar.

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Current Medical Literature.

MEDICINE.

A CASE OF ERB'S DISEASE.

By Dr. Testi (Ref. Revue Neurol. No. 11, 1906; Ref. Soc. medico-chirurgica di Bologna.) The author observed a case of myasthenia, which had developed in a young woman 22 years of age, in connection with traumatism. There was prompt exhaustion not only on any physical exertion, but also from optic and acoustic stimulants. Complete darkness and absolute quiet had the same fatiguing effect upon the patient as bright illumination and noise. She felt most at ease in a moderately light and not absolutely noiseless room. There never was any acceleration of the pulse after the injection of 1 mg. atropin, but a few times retardation of the pulse was observed, showing a marked diminution of tonus in the vagus nerve. The marked exhaustibility of the centers of sensation, respiration and vasomotor activity were well demonstrated in this case of Erb's disease.

THE SIGNIFICANCE OF ABSENT PATELLAR REFLEXES IN DISEASES ASSOCIATED WITH INCREASED PRESSURE OF THE CEREBROSPINAL FLUID.

By Dr. Balint (Ungar. Med. Presse, XI, 6, 1906.) The author arrives at the following conclusions: The absence of the Reflex in brain tumors is solely referable to the increased pressure of the cerebrospinal fluid. The cause of the absence of the reflex in these cases is to be sought for in changes of the lumbar portion of the spinal cord, and especially in degeneration of the posterior lumbar roots, due to the increased cerebral pressure. Of course this does not exclude the contribution of toxic factors to the degeneration of the roots. Similar conditions exist in other high lesions of the spinal cord, which change the pressure relations in the spinal canal. Here also the changes of the lumbar roots may bring about the absence of the patellar reflex, the pathological process not necessarily extending to the spinal marrow. Accordingly the absence of the reflex by no means invariably serves to aggravate the prognosis, and in itself does not constitute a contra-indication to operative interference, as, for instance, in tumors of the spinal cord.

—:00—

SURGERY.

ACUTE SUPPURATIVE OSTEOMYELITIS.

Dr. Ochsner, New Orleans, in a paper published in the New Orleans Medical and Surgical Journal, shows that confusion sometimes arises between osteomyelitis and typhoid fever. Osteomyelitis is also confounded with tubercular or syphilitic diseases of the bone, but it is most frequently mistaken for acute rheumatism. Rheumatism is a polyarticular disease, different joints in the patient's body becoming simultaneously or successively involved. In rheumatism the joint swelling is usually found earlier than in osteomyelitis. Rheumatism is essentially a disease of the joint, and despite the fact that a joint affection is sometimes present in osteomyelitis, the degree of greatest sensitiveness in rheumatism would be in the joint and not in the diaphysis of the bone, near its epiphyseal end, as in osteomyelitis. The monarthritis of gonorrhea is cleared up by the history and bacteriological examination. The treatment of osteomyelitis consists in making an incision, under general anesthesia, through the point of greatest tenderness to the bone and then trephining the bone. With the escape of pus the opening in the bone should be enlarged with chisel or rongeur until the whole infected area is exposed. The wound in the bone should not be curetted, as thereby the integrity of the

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endosteum, so essential to repair, is destroyed. The epiphysis of the bone should not be injured. Effusion into the joint, when it exists, is usually of a non-infectious character, and the joint should not be opened by the surgeon. The results of early operation in osteomyelitis are well summed up by Dr. Senn, Chicago as follows: (1) The operation removes pain; (2) It enables the surgeon to remove the local cause of the disease completely or in part; (3) It prevents extensive necrosis of bone; (4) It is the best prophylactic measure against fatal septicemia or pyemia; (5) It prevents extensive destruction of the periosteum and the contiguous soft parts; (6) It cuts short the attack and expedites recovery.

CHRONIC SUPPURATIVE PROCESSES IN THE HAND.

Necrosis of the distal phalanx ordinarily ends in sloughing of the diaphysis alone. Incision should be made laterally instead of upon the volar surface. The proximal inter-phalangeal point is most commonly involved. The proximal phalanx escapes while the epiphysis and part of the diaphysis of the middle phalanx are destroyed. Conservative operations may be done with some success. Isolated involvement of the tendon sheaths may be present. Incision of the sheath should expose all involved parts. Chronic palmar abscesses frequently point on the dorsum passing along the lumbrical canals. Palmar abscesses may be opened along these canals. Chronic dorsal abscesses may point at a distance from the focus owing to the dorsal aponeurotic sheath.

The carpal joints are frequently invaded from the radial bursa, abscesses and sinuses appearing upon the dorsum. Every effort should be made to preserve the integrity of the tissue between the first and second row of metacarpals.

Serious forearm abscesses lie below the flexor profundus and may be opened either in front in connection with an incision in the palm or in isolated cases by lateral drainage.—Surg. Gynec. and Obstet.

MULTIPLE LAPAROTOMY.

Dr. Elsberg, at a meeting of the New York Surgical Society, presented a child on whom he had performed laparotomy three times. The first operation was practiced when the infant was 10 months old for an ileo-cæcal intussusception which extended into the sigmoid flexure. Reduction was successfully accomplished, and after an interval of 10 days the child was well. Four weeks later the child was attacked by severe symptoms of acute intestinal obstruction, due—as was found on re-opening the abdomen through the old scar—to constriction of the cæcum by a band. This was divided between ligatures, and after 10 days recovery was complete. Six weeks later, when the child was just 1 year old, laparotomy was performed for the third time for intestinal obstruction, and a band was found which had strangulated a loop of ileum. Notwithstanding the severity of this third attack and intensity of the shock, the child made an uneventful recovery from the operation.—Annals of Surgery.

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OBSTETRICS.

FATTY DEGENERATION OF THE UTERUS DURING PREGNANCY.

Ciulla, in a study of this subject, finds that a true fatty degeneration of the uterus takes place during the last two months of pregnancy. This degenerative process involves the hyperplastic muscular fibres of the pregnant organ, destroys them and afterwards effects fatty infiltration within the hypertrophic fibers which are thereby reduced to their normal form and dimensions.

At the termination of pregnancy and during delivery, the fatty degeneration exerts a restraining influence over the unusual irritability of the uterine musculature. Thus an excessive fatty degeneration would explain the inactivity of the uterus in some cases, whereas insufficient degeneration or absence of degeneration would account for the excessive and spasmodic contractions during the puerperal period. Subinvolution and hyperinvolution of the uterus during the puerperium are explained in like manner.

Ciulla recognizes excessive and premature fatty degeneration as the main etiologic factor in delayed delivery, and an absolute absence of the degenerative process is the cause of premature delivery. The fat derived from the fatty metamorphosis of the unstriped muscle fibres of the pregnant uterus may participate in the further development of the fetus during the last two months of pregnancy and may serve to form the first reserve in preparation for the function of the mammary glands. The fat derived from the active processes of involution during the puerperium, too, is utilized in the lacteal secretion.—Centralbl f. Gyn.

PROGNOSIS OF BREECH PRESENTATIONS.

Ganssel Zuglemann (L. Obstle.) reminds us that in former times the breech presentation was regarded as somewhat less favorable to both mother and infant than the vertex. He has made a study of the records of the Maternity Hospital of Montpelier, with reference to the statistics to be gained in breech presentations. He finds that they were somewhat less frequent then in city clinics. Between 1896 and 1906 he finds 53 breech presentations, 32 complete and 21 incomplete. He concludes from tabulation of the records of these cases that breech presentation is almost as favorable for the mother as the vertex. The course of labor is as rapid and as regular, ruptures are no more frequent than usual, and the puerperal period is physiological. For the child the prognosis is a little graver than in the vertex presentations; complete and incomplete presentations do not differ. The disengagement of the feet to assist delivery does not seem to be of any benefit.—Amer. Jour. Obst.

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PATHOLOGY.

CEREBRAL EMBOLISM IN THE COURSE OF POSTDIPHTHERITIC CARDIAC WEAKNESS.

Escherich (Wiener Med. Woch.) assumes that in two cases under his recent observation, thrombosis developed as the result of cardiac weakness, being followed by embolism of cerebral vessels. The first patient was a child two years of age, who was admitted to the hospital in a condition of severe collapse, with paralysis of the right half of the body. On the next following day, the lower extremities were held in rigid extension, with some slight motions of the right arm. Consciousness was apparently preserved. One day latter the patient presented a livid discoloration with analgesia of the legs. Reaction to painful stimuli could be elicited only in the upper third of the thighs, the right leg being observed to present a spastic paralysis. The eyes were deviated towards the left. The patient died during the night, and the autopsy showed the presence of embolism of the left median cerebral artery, with recent white softening of the left cerebral hemisphere.

The second patient was a child nine years of age, who three weeks after a severe attack of diphtheria presented total paralysis of the palatine velum and of the accommodation. There was a very sudden apoplectic seizure with general convulsions. The four extremities are said to have been paralyzed immediately after the attack. In the course of the next few months, the paralysis subsided on the left side, whereas spastic paresis persisted on the right side of the body. The right angle of the mouth was disorted and unable to keep up with the movements of the left side. The muscle tissue of the right arm was in a state of increased tonus and appeared somewhat hypetrophied. The arm was held rigid, and its movements were considerably slower and more awkward than those of the left arm. In walking, the patient presented the phenomena of athetosis; the right leg remained in extension and dragged behind. The patellar tendon reflexes were increased and there was dorsal colnus on the right side. These clinical phenomena must be interpreted in such a way that as a sequel to severe pharyngeal diphtheria there appeared a typical series of post-diphtheritic paralyses, simultaneously with post-diphtheritic weakness of the heart, leading to thrombosis and embolism of a cerebral artery on the left side of the brain.

GLAUCOMA.

The causal factor of glaucoma exists in a primary obstruction and closure of the pectinate ligament, due to sclerosis of the fibrous structures about the filtration area, and all other changes are secondary to this. The hinderance to the aqueous outflow does not arise from the peripheral anterior synechia so frequently met with in glaucoma, but it is caused by the closure of the interspace of the pectinate ligament in consequence of the fibrosis of the cells of its connective tissue stroma and the formation of a homogeneous membrane around these fibrous bundles, leading to the endothelial cells being first brought into contact, and then welding together the fibrous structures. The iris, in addition, is not only a diaphragm, but an absorbing surface accessory to the pectinate ligament, and when the latter is obstructed the iris has to do the whole drainage. When the pupil becomes dilated, its area becomes lessened and the crypts near the pupil become closed, and thus the blocking of the angle of the anterior chamber is a consequence of the acute iritic œdema, and not the cause of the glaucoma. The œdema of the cilliary body relaxes the suspensory ligament, thus allowing the lens to become more globular and subsequently causing shallowing of the anterior chamber. By modifications in these processes, acute, subacute, and chronic glaucoma are explained. The reason why myotics cause diminution in tension is because the crypts on the surface of the iris become open and the aqueous is able to its way out. Mydriatics act in just the opposite way. After an iridectomy, the stump of the iris shows no signs of healing. The operation opens up permanent channels by which the fluid can drain away. The operation will always be effective unless the iris tissue is too atrophied and degenerated. T. Henderson (British Medical Journal November 2, 1907).

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THERAPEUTICS.

FIBROLYSIN TREATMENT.

In the Deutsche Medizin. Woch of October 24th. Dr. Becker reports results of treatment with fibrolysin in several cases.

1. A case of Dupuytren's contraction of the fingers in an engineer, aged 60, was treated by means of 19 injections within four weeks. The little and ring fingers were almost completely flexed by the palmer contraction. In order to secure a fair test, no other manipulations, that could stretch the fascia or extend the fingers, was permitted. Only when the palmar nodule became softer and the fascia permitted better spontaneous movement of the fingers, were extension exercises permitted and latter garden work. After the four weeks' treatment, comparison with the unaffected hand, as to appearance and function, showed scarcely any difference between the two. After five months the excellent result still remained without change. The injections into the gluteal muscles were almost painless. Untoward effects were not noticed, except that toward the end of treatment the patient complained of decided fatigue.

2. In a second case of the same affection, but of lesser degree, in an ederly man, satisfactory improvement had occurred with eight injections.

3. The fibrolysin was then tried in the after treatment of injury of the hand from explosion of a gun. Healing of the badly tattered hand left in a claw-like position. Massage, hot salt water and mud baths were in turn employed without special result. But with fibrolysin a very striking improvement began. Within three weeks ten injections were given The patient was charmed with the startling effect of the drug, but, feeling tired and weak during the treatment, did not wish to continue it. There was no objective evidence of deterioration of his general health ; on the other hand, the good effect of the treatment on the form and function of the hand was unmistakable.

4. In a case of stiff knee, gradually developing as the result of an injury six years before, and causing almost complete immobility of the joint, perceptible improvement was secured by fourteen days' treatment, using 7 injections. While the patient at first could touch the floor with the toes only, he could later place the entire foot upon the floor. Previously hot water and hot air baths had been employed without any influence upon the condition. The surroundings did not permit of continuance of the treatment, so that a complete result of the same could not be attained.

5. The final case, that of woman 54 years old, with chronic, deforming articular rheumatism (a hopeless case), did not show any change in the condition by the fibrolysin treatment. Here also no untoward effects occurred.

The conclusion from experience with these five cases would be as follows : Good success may be expected in Dupuytren's contracture, and striking improvement in stiffness of joints when the latter follows injuries to the soft parts ; but when the joint is fixed as a result of chronic joint inflammation no mobilizing effect can be looked for. As regards stretching of cicatricial, fibrous tissue, fibrolysin may here be employed with confidence, and even in cases where baths, massage and gymnastics have failed, success is likely to be attained.

THE CACODYLATES.

Merck's Archives for July reminds us that Gautier, in 1899, introduced the cacodylates into therapeutics and for a number of years following the introduction of these organic arsenic combinations, enthusiastic approbation was given to them particularly by French therapeutists. On the foundation of purely hypothetical reasons, Fraser pronounced them worthless, and Fraser's authority has led practically all English authors to adopt his ipse dixit, and in most of out text-books his criticisms have been handed down. Spencer Dawes and Holmes C. Jackson (Journal A. M. A.) show, however, that Fraser's reasoning is based entirely upon false premises, and that his criticisms are misplaced and erroneous. The cacodylate of soda not only has a distinct pharmacologic action, but is decomposed in the body and is eliminated as arsenates in the urine and feces and probably in the sweat and the breath. In 45 cases, similar to those in which arsenic is usually employed, 34 were cured, 11 were not benefited and two were made worse. The patient gains in weight and almost invariably feels better.

NEPHRITIS.

In the American Journal of Clinical Medicine for August, W. F. Waugh refers to a case of advanced nephritis with uremic convulsions, in which recovery followed under skimmed-milk diet, and with this formula : sodium acetate, one ounce ; chloroform and benzoic acid, each one dram ; water to make 12 ounces ; dose a tablespoonful every four hours as long as albuminuria persists. He has used this treatment for nephritis for 30 years and has found it so efficient in nephritis of the desquamative type and has noted so many recoveries under its use, that his prognosis in such cases is not very gloomy.

THE USE OF ADRENAL IN ETHER ANESTHESIA.

Venable reports in the Virginia Medical Monthly the beneficial effects of Adrenal in 25 per cent. solution of the standard of 1 in 1,000, when applied simultaneously with the ether. He found that not only was the anæsthetic effect more intense, and lasted in some cases up to one hour, but that perfect anæsthesia was attained with much less ether. The author says that as by this method the bronchial glands secrete less mucus, there is better aeration of the bronchioles and pulmonary vesicles, and consequently less chance of pneumonia setting in.

THE HEART IN FEVER.

Steplane Leduc in the New York Medical Journal (La Province Medicale) directs attention to the danger to the patient of paralysis of the heart in febrile diseases and believes that many lives may be saved if prompt attention is given to the condition of the heart. The necessity of preserving the horizontal posture is generally recognized. Sudden death is most frequent in those patients who, rising from the bed, attempt to stand upright on the floor. This is owing to the sudden increase in the intracadiac pressure. The heart wall is also weakened by the elevated temperature of the blood (thermic myocarditis). This may in great measure be prevented by the steady application of an ice-bag over the precordia. A piece of flannel should be placed under the bag to protect the skin.

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These important qualities are guaranteed by using the highest permissible temperature in the process of manufacture (130° to 140° Fahr. for 24 hours). No guarantee of this description is possible for preparations made by a cold process with ether.

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Infants - - Take from Half to One Teaspoonful twice a day in milk.
Children - „ One or Two Dessertspoonfuls daily, either pure or mixed with any convenient liquid.
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Connected with the College are a small Indoor Male and Female Hospital, also a well-attended Outdoor Dispensary. In both the HOSPITAL and DISPENSARY everything is free: diet, beds, medicines, medical comforts, **etc. The yearly attendance at the** outdoor **dispensary is** over 40,000 **cases.**

The Executive Committee solicit public support to enable them **to** fully **and** more fittingly **carry out the objects of the Institution, more** especially of the attached Hospital and Dispensary. **The** College, with its connected departments, have been maintained, in the past, partly from the **fees** of the pupils which is quite inadequate for the purpose. **The** expenses connected with **the upkeep of the Hospital and Dispensary are enormous.**

Funds are urgently required

1. **For medicines,** surgical **instruments,** bedding, diet **and** other hospital **necessaries.**

2. For building a Hospital **which,** unlike the present building, will be the property of the College. For **the** "Hospital Building Fund" **subscriptions** and donations are specially solicited.

Gifts of clothing, bedding, **suitable furniture,** furnishings, medicines, surgical instruments, microscopes, pathological and other specimens, medical books and medical journals (old or new) for the library, articles of food (suitable **for European and Native** patients, **etc.**), will be thankfully received.

The Members of the Medical Profession, in India, are respectfully asked to co-operate and help, as much as lies in their power.

All communications and remittances to be sent to—

CALCUTTA :
3 to 3-18, Wellesley Street.

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Correspondence.

Audi Alteram Partem.

THE CAMPAIGN AGAINST PLAGUE.

To the Editor, The Indian Lancet.

Sir,—His excellency the Governor has taken a further wise step in the policy of popularising inoculation by inviting to Parel the representatives of the medical profession in various Native States of the Presidency. The effort to induce a general desire for inoculation must necessarily bear fruit but slowly, in view of the disbelief in its efficacy and the suspicion, fostered by a certain number of irresponsible people, that it exercises a sinister effect upon the general health of the individual. Much harm, too, has been done by persons who, in order to gain the favour of the head of their office or department, have publicly stated that they had submitted to inoculation when actually they had not done so, and have subsequently been attacked by plague and died, while many cases of inoculation too late, when the disease was already incubating in the patient, have afforded grounds for casting doubt upon the absolute efficacy of the prophylactic. In spite of this, inoculation appears to be growing slowly in favour, particularly in places like Satara which possesses an evil plague-history: and no step is more likely to aid the general acceptance of this form of prevention than the ocular demonstration supplied under the orders of His Excellency to the native editors and medical men from the outlying areas of the Presidency. But simultaneously with the campaign of persuasion in favour of inoculation it behoves Government to do away with irritating restrictions, such as the medical inspection at sea-ports, which in view of the recent dicta of the Plague Commission cannot possibly serve any useful purpose and cause very great annoyance to the public. That the value of inoculation will gradually be appreciated by the mass of the people, there is little donbt: but any general decision to make war upon rats is by no means so certain. In Bombay itself, at any rate, one will never be rid of them to any appreciable extent, for a sea-port such as Bombay never can be so; while in a great many cases the very merchants, whose stock-in-trade is peculiarly attractive to these pests, belong to a sect to whom the idea of killing any living creature is fundamentally and hereditarily repugnant.

Yous etc.,

R. F.

SANITARY SERVICES IN INDIA.

To the Editor, The Indian Lancet.

Sir,—With a letter of 9th January from the Government of Bengal there was forwarded copy of a letter of 4th December 1907, from the Government of India, Home Department, on the subject of the improvement of the sanitary services in India and the development of the present establishment on lines which will bring it abreast of modern requirements. The opinion of the Association on the proposals made by the Government of India was invited.

The Committee decided to postpone consideration of the letter pending receipt of further information.

Yours etc.,

S. W. K.

CHOLERA ON ASSAM STEAMERS.

To the Editor, The Indian Lancet.

Sir,—Messrs. Macneill Co., Agents, Rivers Steam Navigation Co., Ld. have forwarded to the Committee copies of a correspondence in connection with the treatment to which a number of coolies suffering from cholera were subjected at Dhubri. The coolies referred to were passengers by the steamer Waziri, and it appeared from the papers that the steamer arrived at Dhubri on the 5th of this month and reported five cases of cholera. The Assistant Surgeon ordered the vessel's detention until the epidemic had subsided, and landed the coolies at the ghat, although there was no suitable accommodation there for them; Messrs. Macneill & Co. had addressed the Government of Eastern Bengal and Assam pointing out that the proper course would have been to allow the steamer to proceed with the patients on board after steps had been taken to ensure their proper segregation and to disinfect the steamer; had this been done, they submitted that the steamer with the segregated patients would have arrived at Gauhati, where there is a suitable hospital, before the huts hurriedly taken in hand at Dhubri were ready. As the case might have an injurious effect on emigration, Messrs. Macneill & Co. asked that the General Committee should take the matter up with Government.

The papers were considered and it was agreed to comply with Messrs. Macneill's request and to address a representation to the Government of Eastern Bengal and Assam, calling attention to the action taken by the authorities at Dhubri.

Yours etc.

A. M. S.

THE GERM OF SLEEPING SICKNESS DISCOVERED.

To the Editor, The Indian Lancet.

Sir,—Professor Koch has been honoured by the Kaiser for a great service to humanity. "The Sleeping Sickness" has long been the scourge of Central Africa. It has devastated human life as terribly as the bubonic plague itself. No one has hitherto been able to point out the cause of this affliction. After spending a year and a half on a small island in Lake Victoria Nyanza amidst the greatest privations, the Professor discovered that an insect, glossino palpalis, conveys the germ of the disease and that the pest breeds in the grass and sedges on the banks of lakes and rivers. Wherever the crocodile is found the insects abound, for the blood of the crocodile forms the chief food, of the insect. It is possible to get rid of the undergrowth and of the crocodiles, too. In this way the pest would become very much abated.

Yours etc.,

E. H.

THE CURE OF LEPROSY.

To the Editor, The Indian Lancet.

Sir,—I observed the other day that Sir James Bourdillon and other Vice-Presidents of the Lepers' Mission have made an appeal in London to the public for funds, especially on the ground of the scarcity in India. The lepers are always with us, and Calcutta swarms with them, especially in our public market places. There is a man in our midst at present—A. L. Baldwin, M. D., S. P. E.'—who has devoted his life to the study and the cure of that loathsome disease, but I fancy because he is not an I. M. S. man, his path is always bureaucratically blocked when he tries to get the Government to give him a chance to show what his treatment can do in the cure of leprosy. He memorialised the Government of India on the subject, and in due process of filtration the matter, after the usual number of months, came down to the Government of Bengal with the recommedation that if his Honor saw his way to do anything in the matter he might do so. Following the usual course his Honor sent on the papers to his Medical Department, and then after a leisurely term, Mr. Baldwin was told that before they would do anything in the way of giving the treatment a trial, he must disclose the nature of the component parts of his prescription. This Mr. Baldwin is scarcely prepared to do in the meantime, and that for reasons which may be readily imagined. And here the matter remains so far as the Bengal Government is concerned.

Now may I make an appeal to his Honor? Your Honor knows full well that Leprosy abounds in our midst, and lepers roam amongst us unchecked, and that all that the Government Medical and Health Departments from the top to the bottom in India have done to grapple with this disease in the way of extirpating it, or in curing it, has practically amounted to—nothing. Now here comes along a respectable man, and no quack, affirming that he has made a special study of leprosy for many years; that he has found out a way of treating the disease successfully: has done so, as his genuine certificates testify, and wishes for a little Government patronage to make more widely known his remedy. Don't you think it would be wise for once to cut right through the wisps of red tape which blocks the trial, and give the man a chance as well as the lepers? Arrange to put, say, twenty cases under his charge in an hospital ward, and let your medical man (the most fair-minded you can get) watch the result? If he fails to effect a cure or an appreciable amelioration in the condition of the poor creatures, then of course he fails, and there is an end of the matter, so far as the Government and Mr. Baldwin are concerned, but (and this is the hope) if he succeeds, see what immense possiblities for good are in store for the leper population in India under Government sanction!

Yours etc.,

INTERESTED.

Wanted known, that a Dispensary, where all medical and surgical accessories are available has been opened at 3, Wellesley Street, under the name of Ellwood & Co.

Prescriptions dispensed day and night, and urine analysis done.

Dr. N. N. Dey, L.R.C.P. & S., Edin. L.F.P. & S., Glasgow &c., can be consulted daily between the hours of:—

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MENSTRUAL IRREGULARITIES

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Acts as an intestinal antiseptic, as well as a purgative, eliminating germs and preventing auto-infection (ptomaine poisoning). This action is solely due to sodium sulphite contained as a fixed compound in the water.

Is acceptable to nearly all patients, as it never produces nausea, weakness nor thirst. In its use purgation is not followed by constipation, as is unfortunately and commonly the case with other purgative waters.

Does not weaken; it produces a tonic effect, stimulating the whole system; appetite is increased, sallowness and foulness of the breath disappear, headaches and vertigo vanish.

Is the only purgative water the use of which is unaccompanied with disadvantages in genito-urinary diseases.

Relieves women suffering with hemorrhoids and diseases of the uterus and ovaries, by reducing the congestion of the pelvic viscera.

Re-establishes the normal flow of bile, and is thereby a prophylactic in cases of biliary colic, due to the passage of biliary calculi.

Is indicated in cases of flatulency, bilious attacks, eczema, glandular enlargements and scrofula.

Benefits chronic nervous conditions, atony of the stomach and intestines, certain forms of diseases of the heart and circulatory system, chronic cases of skin affections and certain diseases of the lungs.

If used regularly alone, will often suffice in cases of influenza, diarrhœa, malaria, gastric and febrile disorders and infectious diseases by enabling the engorged, digestive, circulatory and lymphatic systems to regain their normal condition.

Acts in trifling doses. One small wineglass taken on an empty stomach immediately before breakfast produces a well-marked laxative effect in an adult. The dose for women or children should be reduced to one-half or one-third.

Is now considered an indispensable mineral water, especially in large city practices where it is important to husband the patient's strength, under penalty of their developing anæmia, or breaking down under the nervous strain and becoming neurasthenics.

Is cheapest because best. It is now prescribed by the leading physicians and stocked by all first-class retail druggists.

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A sample bottle will be sent free to any Physician if he will pay express charges.

SOLD EVERYWHERE.

THE CAMPBELL HOSPITAL.

Special Arrangements for the Ardhodhoy Yog.

To the Editor, The Indian Lancet.

Sir,—The Campbell Hospital in Lower Circular Road is at present undergoing a complete renovation, and a great many improvement on modern principles will be introduced when the scheme now in progress in completed. The building known as the old central block has been demolished and in its place two smaller buildings have sprung up—one to be the male surgical ward and the other a students' library and museum—the former supplying a long felt want, while the advantage of the latter will undoubtedly tend to improve the capacities of the students turned out. Provision is being made for an operation room, which will be common to the male and female surgical wards. It will be on the latest hygienic and scientific principles and is expected to compare favourably with the sister hospitals of Calcutta. Preparations are also on foot for the erection of a third building, which will be utilised as a male medical ward. On inquiries made by a Statesman representative he was informed that there were 16 cases of small-pox, three of the number being Europeans. The late epidemic of cholera is now at an end: there are only three cases in the hospital and all are doing well, while on the other hand small-pox has been on the rise for the past two months, the hospital authorities strongly recommending vaccination.

Special arrangements are being made at the hospital for the coming festival at Kalighat, known as the Ardhodhoy Yog. The hospital authorities have been in correspondence with Dr. Bose, the Principal Medical Officer of the E. B. S. Railway, over which line a daily influx of about 12,000 passengers is expected at the time of the festival, among whom an outbreak of cholera is possible. He requested the Campbell Hospital authorities to make arrangements to meet any such cases that may occur. After informing the Inspector-General of Civil Hospitals the authorities received instruction to erect accommodation for 120 beds. The hospital authorities have risen to the occasion and have already erected the temporary sheds to hold 80 beds, out of which one shed containing 20 beds will be reserved for females, sheds to contain the other 40 beds being erected as occasion demands. The necessary bedding, clothing and drugs are now in stock. The servants for the wards and cooks, etc., are all being arranged for on no mean scale.

Yors etc,

D. V.

BREEDING MOSQUITOES IN BOMBAY.

To the Editor, The Indian Lancet.

Sir,—If a systematic inspection could be made of the water tanks that are now so commonly placed on the roofs of houses in Bombay, it would be found, that, by a perversity that is nothing less than diabolical, they have been converted into nurseries for the breeding of mosquitoes. The tanks are all covered and provided with lids, many of which are perforated with holes three-quarters of an inch across, so that the mosquito may have free access at all times. As a rule the lids are kept wide open; in consequence, the top floor of houses which should be free from mosquitoes are often infected by them, and the terrace roofs are spoiled as a pleasant retreat at night, for the same reason. A hamal was recently taken to task for opening these tanks on a roof, which had been previously kept closed. He replied with an air of superior knowledge that "drinking water should always see the sun as in wells!" There are hundreds of houses and several hotels in Bombay where mosquito curtains would be quite unnecessary if the domestic servants could be got to understand that mosquitoes cannot breed except in water that must stand for more than a week. And if the water must remain for a longer period it must be inaccessible to the mosquito.

Yours etc.,

DION.

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URIC ACID SOLVENT.

A combination of the Tonic, Alterative and Laxative Salts similar to the celebrated Bitter Waters of Europe, fortified by the addition of Lithia and Sodium Phosphate. It stimulates the liver, tones intestinal glands, purifies alimentary tract, improves digestion, assimilation and metabolism. Especially valuable in

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SANITATION OF DELHI CITY.

To the Editor, The Indian Lancet.

Sir,—Though plague has occurred in other districts of the Delhi Division, including those areas affected by the prevailing scarcity, no cases are yet reported in Delhi City, although plague has occurred outside in villages of the Delhi and Sonepal Teshils. The sanitation of Delhi City continues much improved owing to strict European supervision. Some better revision of Municipal sanitary economy has latterly occurred and one important proposal, now pending decision, is the employment of the entire present staff of Municipal sweepers on full time at full pay against the present system of half time occupation, thus doubling the efficiency of the existing sanitary arrangements. Such a measure would involve an increased annual expenditure of some Rs. 7,000, but the authorities regard this as a premium paid on revenue in asmuch as Municipal finances suffer considerably under many heads in an epidemic such as plague which early last year caused a general exodus and panic in the City with practical suspension of business for three months.

A fair progress is reported in the local work of rat destruction. On the abolishing of the post of Sanitary Superintendent some months since the Municipality obtained sanction to the appointment of a special Health Officer. The selection for the vacancy rests with the Inspector-General of Civil Hospitals and the post has apparently not yet been filled.

M. M. W.

Yours etc.,

INJURIOUS TO HEALTH.

To the Editor The Indian Lancet.

Sir,—At a meeting of the Calcutta Corporation, Babu Askhay Kumar Basu asked: (a) Is the Chairman aware that a certain oil of the name "Bloomless," which is suspected to be mineral oil imported from America and used in adulterating mustard oil, is sold in the bazar and that this oil is injurious to human health? (b) If the Chairman is not aware of the fact will he be good enough to direct the Health Officer to make an inquiry on the point and place the result of the inquiry on the table for the information of the Corporation and the public?

The Chairman replied: (a) The so-called "Bloomless" oil is a mineral oil, but it has not been found as an adulterant in any sample of mustard oil sent in to the Laboratory. This substance has been reported previously as an adulterant even as far back as 1902. It has been frequently sought for in the samples of mustard oil received. (b) Further inquiries will be made.

Yours etc.,

W. G. L.

PLAGUE IN RAJPUTANA.

To the Editor, The Indian Lancet.

Sir,—Last year the people of Rajputana had both plague and famine among them, in so mitigated a form that the local authorities have no reason to be dissatisfied with the measures adopted. The annual report shows that plague infected nothing like the area it had done in the previous year, and that, in consequence, deaths from this disease fell from over 22,000 to just over 2,000. This is certainly a very notable decrease and, indeed, somewhat surprising in view of the facts that inoculation was hardly resorted to at all, and the people were opposed to the disinfection of houses and effects. The advantages of early evacuation were, however, appreciated by the villagers, and possibly this may have had something to say to the result. It is, perhaps, more probable that the virulence of the previous year's epidemic had worn itself out or had, to some extent, yieled to action taken at the time. The famine statistics are even more satisfactory. Owing mainly to the vigorous manner in which it was taken in hand there appears to have been little of the more serious forms of distress. Cases of emaciation were rarely seen, and only some twelve deaths occurred at the relief centres established in the Ajmer-Merwara districts which included the famine area.

Yours etc.,

C. W. S.

In all disorders of the respiratory tract in which inflammation or cough is a conspicuous factor incomparably beneficial results can be secured by the administration of

Glyco-Heroin (Smith)

The preparation instantly diminishes cough, augments expulsion of secretions dispels oppressive sense of suffocation, restores regular, pain-free respiration, and subdues inflammation of the air passages.

The marked analgesic, antispasmodic, balsamic, expectorant, mucus-modifying and inflammation-allaying properties of

Glyco-Heroin (Smith)

explain the wonderful curative action of the preparation in the treatment of

Coughs, Bronchitis, Pneumonia, Laryngitis, Pulmonary Phthisis, Asthma, Whooping Cough

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Glyco-Heroin (Smith) is admittedly the ideal heroin product. It is superior to preparations containing codeine or morphine, in that it is vastly more potent and does not beget the by-effects common to those drugs

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Chloralamid. Superior hypnotic without harmful or unpleasant by-effects, having the following advantages over Chloralhydrate:—Its action develops more gradually. The depressing effect of Chloral upon the heart is counteracted by the action of the formamide contained in Chloralamid. It does not cause headache. Chloralamid should on no account be dispensed in hot solutions.

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Urotropine. A valuable urinary antiseptic and uric acid solvent, very efficient in all suppuratory diseases of genito-urinary tract, pyelitis, cystitis, with ammoniacal decomposition of the urine, phosphaturia, and also in gouty and rheumatic affections, where active elimination of uric acid and the urates is required. Highly recommended in typhoid bacteriuria as a prophylactic against the spread of typhoid fever.

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NEW LIFE & VIGOR

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DR. JAMES H. BEARD, M.A., M.D.,

to be "a chronic functional disease of the Nervous System, the basis of which is impoverishment of Nervous force, waste of Nerve tissue in excess of repair, hence the lack of inhibitory or controlling power—physical and mental—the feebleness and instability of nerve action, and the excessive sensitiveness and irritability, local and general, direct and reflex. The fatigue and pain that temporarily follow excessive toil or worry or deprivation of food or rest, are symptoms of Acute Neurasthenia, from which the chronic form differs only in permanence and degree. Nervousness is really Nervelessness." There are thousands of people who, given up as incurables, their strength and powers undermined as a result of Nervous Exhaustion, to whom "NEW LIFE AND VIGOR" are magic words, are languishing for the greatest of all blessings: Robust Health and Restored Vitality. To all such we commend the use of B. & S SOLUTION, the celebrated remedy discovered by Dr. Lawrence, M.D., which has been used in all parts of the world for over quarter of a century.

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Reviews of Books.

The American Illustrated Dictionary. By W. A. Newman Dorland, A.M., M.D., Fourth edition. London W. B. Saunders Company. 1906.

This is really the ideal medical dictionary for the physicians general use. It is of convenient size, up to date, and sufficiently full for the ordinary requirements of reference. Its definitions are concise, and it stands midway in fullness between the medical encyclopedia and the ordinary student's dictionary. It does not stop at strict medical terms, but gives words in the collateral sciences.

Under each drug are given its composition, sources, properties, uses and dose. The more important diseases have given their etenology, symptoms, etc. Under the principal organs is found a brief description of their anatomy, function, etc. A large amount of accessory matter is also contained. The book is well illustrated, largely in colors. The type is large and clear. We have taken at random a number of words which we have found missing from some recent medical dictionaries and found them all well defined in this volume.

This fourth edition represents an addition of some two thousand words, and brings the work strictly up to date. We have pleasure in recommending it highly.

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Government Medical Notifications.

INDIA.

The services of Captain H. H. Kiddle, I.M.S., are, on his transfer to the Royal Army Medical Corps, replaced at the disposal of His Excellency the Commander-in-Chief in India.

The services of Captain D. S. A. O'Keeffe, M.B., I.M.S., are placed temporarily at the disposal of the Government of Madras.

Major J. Chaytor-White, M.D., I.M.S. (Bengal), Chief Plague Officer, United Provinces, is appointed to be Sanitary Commissioner, United Provinces, sub. pro tempore, with effect from the 20th January 1908.

2. The Home Department notification no. 147 (Sanitary), dated the 16th January 1908, is hereby cancelled.

Fourth class Assistant Surgeon Norman Sydney Williams, Indian Subordinate Medical Department, is permitted to resign the service.

BENGAL.

On return from leave, Captain R. P. Wilson, I.M.S., Civil Surgeon, is posted to Burdwan, with effect from the 28th December 1907.

Captain H. B. Foster, I.M.S., Officiating Civil Surgeon, is placed on special duty in connection with plague in Bihar with effect from the 6th January 1908.

First grade Assistant Surgeon Babu Ganesh Chandra Mitra is promoted to the senior grade, with effect from the 4th December 1907, vice Senior Assistant Surgeon Babu Bepin Bihari Gupta, retired.

Major V. E. H. Lindesay, I.M.S., made over charge of the Muzaffarpur Jail to Lieutenant-Colonel T. Grainger, I.M.S., on the afternoon of the 20th January 1908.

Maulvi Saiyid Ali Hasan, third grade Assistant Surgeon, did supernumerary duty in the General Hospital, Bankipore, from the 10th to the 23rd December 1907, both days inclusive.

Babu Pratulpati Ganguli, third grade Assistant Surgeon, is appointed, with effect from the 19th November 1907, as Demonstrator of Physics and Chemistry in the Chemical Examiner's Department, Calcutta.

Maulvi Abdul Ghafur, third grade Assistant Surgeon, is placed on special duty in connection with plague work in the Patna Division until further orders, with effect from the 27th December 1907.

Maulvi Wali Ahmad, third grade Assistant Surgeon, is appointed, with effect from the 5th October 1907, as House-Surgeon, Chandney Hospital, Calcutta, in place of third grade Assistant Surgeon Babu Debendra Nath Mukharji, transferred.

Maulvi Wali Ahmad, third grade Assistant Surgeon, did supernumerary duty in the Medical College Hospital, Calcutta, on the 4th October 1907.

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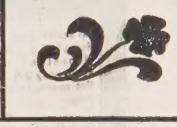

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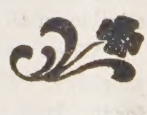

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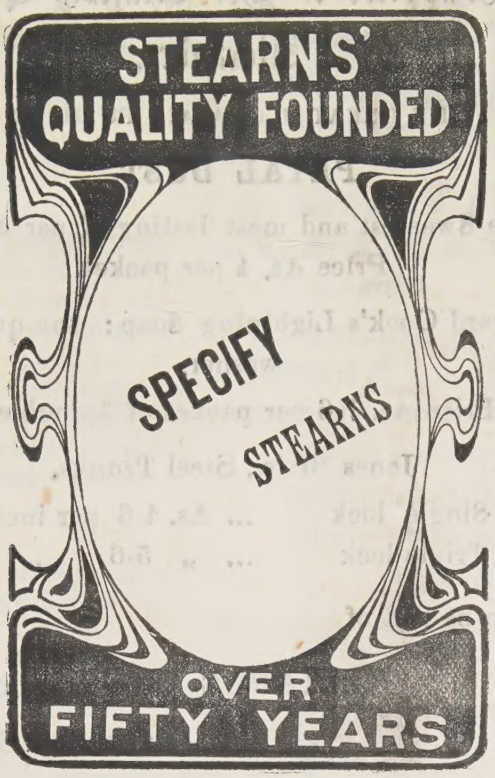
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